What You Will Find in the Career Planning Guide

















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	New Ha	mpshire	Occupati	onal Pro	jections		2015		ice		nse	Н	olland	
	Emplo	yment	Avg. An	nual Op	enings	Future	Average	Entry-Level Education Experience Traininą	rent	itary	Lice	Int	terests	
Occupation, SOC Code, Description	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	App	Σ	풀	1st	2nd 3rd	Career Cluster
Accountants and Auditors (13-2011): Examine, analyze, and interpret														
accounting records to prepare or audit financial statements. Install or	4,727	5,317	59	126	185	^	\$33.81	Bachelor None None		*	*	c	EI	Finance
advise on systems of recording financial and budgetary data.						_								

1. Occupation, SOC Code, Definition

This column gives the title of the occupation, a brief description of work activities, and the Standard Occupational Classification (SOC) code, which can be used to find job postings in the NH Job Match System. The actual tasks and duties of a job may differ, depending on your employer, level of education, and experience.

4. 2015 Average Wage

The 2015 average hourly wage in New Hampshire. For occupations that do not have a standard work week, such as teachers, the average annual rate is shown. Actual pay depends on the employer, education, and experience. Estimates are based on Occupational Employment Statistics (OES) survey data. ('n/a' indicates data are unavailable.)

2. New Hampshire Occupational Projections

For each occupation, the estimated and projected employment, and the average number of expected job openings each year. ('n' indicates data are confidential.)

Employment

- 2014: Estimated number of workers who were employed in 2014
- 2024: Projected number of workers who will be employed in 2024

Avg. Annual Openings

- **Growth:** Projected average annual openings from new job growth
- Replace: Projected average annual replacement openings, created when workers retire or leave the occupation and must be replaced
- Total: The sum of growth openings plus replacement openings

8. Career Cluster

The National Career Clusters
Framework has identified 16
career clusters, which organize
occupations into 16 groups
based on industry, skills, or
products. Each cluster is further
divided into pathways
corresponding to educational
courses and training programs
that lead to career
advancement opportunities.
The primary career cluster for
each occupation is listed.

5. Entry-Level Education | Experience | Training

Usual entry-level education, related work experience, and post-hire job training.

Educational Requirements

- Doctorate: PhD or professional degree (MD, DDS, JD)
- Masters: one to two years beyond a baccalaureate
- Bachelor: four-year college degree (baccalaureate)
- Associate: two-year college degree
- Postsecondary: one to two years of postsecondary study (non-degree award)
- Some college: college study with no degree attained
- High school: diploma or equivalency certificate
- Less than HS: no formal education required

Work Experience in a Related Occupation

- None: no previous experience needed
- < 5 years: less than five years of related experience
- 5+ years: five years or more of related experience

Job Training

Training needed after employment to gain competency.

- Internship: Internship or residency
- Apprentice: apprenticeship training required for entry-level workers
- Long OJT: over 12 months of onthe-iob training
- Moderate OJT: one to 12 months of on-the-job training
- **Short OJT:** one month or less of informal on-the-job training
- None: no specific on-the-job training needed

6. Education or Training Alternatives, and Additional Requirements

- Military: a military experience equivalent exists. See My Next Move for Veterans on the web.
- Apprentice: apprenticeship is a training option for this occupation
- NH License: workers in this occupation may need a license from the State of New Hampshire

3. New Hampshire Future Outlook

An indicator of expected employment prospects, based on a combination of the projected growth rate (percent change from 2014 to 2024) and the projected number of job openings. There are four categories:

- ↑ Very Favorable: high projected rate of growth and projected openings
- **7** Favorable: high growth/low openings, low growth/high openings, or average growth and openings
- 2 Less Favorable: low growth and at least average openings or high growth and very low openings

7. Holland Interests

The Holland Interest Profile is a two- or three-letter code that indicates the interest profile of workers in each occupation. A match between your interests and that of workers in an occupation can mean more career satisfaction. The Holland interest types are *Realistic, Investigative, Artistic, Social, Enterprising,* and *Conventional*. Interest profiles are represented by the first letter of the six interest types (RIASEC). Note: "All Other" occupations do not have interest codes due to the diversity of duties.

For more on Holland interest types, see Career Exploration by Holland Interest Codes

	New Ha	yment	Avg.	ional Proj Annual Op	enings	Future	2015 Average	Entry-Level	prentice	Military	License	Ho	ollar tere:	sts	Career Cluster
Occupation, SOC Code, and Description Accountants and Auditors (13-2011): Examine, analyze, and interpret accounting records to prepare or audit financial statements. Install or advise on systems of recording financial and budgetary data.	4,727			Replace 126	Total 185	Outlook		Education Experience Training Bachelor None None	Apl			1st C	2nd E		Finance
Actors (27-2011): Play parts in stage, television, radio, video, motion picture productions, or other settings for entertainment, information, or instruction. Interpret serious or comic role by speech, gesture, and body movement.	44	47	0	2	2	u	n/a	Some college None Long OJT	*	*		Α	E		Arts, Audio/Video Technology & Communications
Actuaries (15-2011): Analyze statistical data, such as mortality, accident, sickness, disability, and retirement rates, and construct probability tables to forecast risk and liability for payment of future benefits.	n	n	n	n	n	71	n/a	Bachelor None Long OJT				С	I	E	Finance
Adhesive Bonding Machine Operators and Tenders (51-9191): Operate or tend bonding machines that use adhesives to join items for further processing or to form a completed product.	n	n	n	n	n	•	\$16.00	High School None Moderate OJT				R	С		Manufacturing
Administrative Law Judges, Adjudicators, and Hearing Officers (23-1021): Conduct hearings to recommend or make decisions on claims concerning government programs or related matters. Determine liability, sanctions, or penalties.	124	126	0	2	2	y .	\$33.55	Doctorate 5+ years Short OJT				E	I	S	Law, Public Safety, Corrections & Security
Administrative Services Managers (11-3011): Plan, direct, or coordinate administrative services of an organization, such as records management, mail distribution, facility maintenance, custodial operations, and other office support.	642	702	6	12	18	↑	\$41.87	Bachelor < 5 years None	*	*		E	С	•	Business Management & Administration
Adult Basic and Secondary Education and Literacy Teachers and Instructors (25-3011): Teach or instruct out-of-school youth and adults in remedial education, preparatory classes for the GED test, literacy, or English as a Second Language.	152	160	1	3	4	y .	\$25.73	Bachelor None Internship			*	S	Α	E	Education & Training
Advertising and Promotions Managers (11-2011): Plan, direct, or coordinate advertising policies and programs or produce materials such as posters, contests, or coupons to create interest in the purchase of a product or service.	173	184	1	6	7	7	\$45.92	Bachelor < 5 years None				E	Α	С	Marketing
Advertising Sales Agents (41-3011): Sell or solicit advertising space, time, or media in publications, signage, TV, radio, or Internet establishments or public spaces.	604	555	0	18	18	y .	\$35.41	High School None Moderate OJT				E	C	Α	Marketing
Aerospace Engineering and Operations Technicians (17-3021): Operate, install, calibrate, and maintain integrated computer/communications systems consoles, simulators, and data acquisition, test, and measuring equipment to launch, track, position, and evaluate air and space vehicles.	n	n	n	n	n	•	n/a	Associate None None	*			R	I	С	Manufacturing
Aerospace Engineers (17-2011): Perform a variety of engineering work to design, construct, and test aircraft, missiles, and spacecraft. May conduct basic and applied research to evaluate adaptability of materials and equipment to aircraft design and manufacture.	54	57	0	2	2	y .	\$46.42	Bachelor None None		*	*	I	R	Α	Science, Technology, Engineering & Math

	Emplo	yment	Avg.	t ional Pro Annual Op	enings	Future	_	Entry-Level	prentice	Military	License	Int	ollar	sts	Career Cluster
Occupation, SOC Code, and Description Agents and Business Managers of Artists, Performers, and Athletes (13-1011): Represent and promote artists, performers, and athletes to prospective employers. May handle contract negotiation and other business matters for clients.	2014 n	2024 n	Growth n	Replace n	Total	Outlook	Wage n/a	Education Experience Training Bachelor < 5 years None	Ap		★	1st E	2nd C		Arts, Audio/Video Technology & Communications
Agricultural and Food Science Technicians (19-4011): Work under agricultural scientists in food, fiber, and animal research. Assist with animal breeding and nutrition, and conduct tests and experiments to improve crop yield and quality or increase disease resistance.	n	n	n	n	n	7	\$20.80	Associate None Moderate OJT				R	I	С	Agriculture, Food & Natural Resources
Agricultural Engineers (17-2021): Apply knowledge of engineering technology and biological science to agricultural problems regarding power and machinery, electrification, structures, soil and water conservation, and processing of agricultural products.	n	n	n	n	n	4	n/a	Bachelor None None			*	I	R	E	Agriculture, Food & Natural Resources
Agricultural Equipment Operators (45-2091): Drive and control farm equipment to till soil and to plant, cultivate, and harvest crops. May operate stationary equipment to perform post-harvest tasks, such as husking, shelling, and threshing.	56	67	1	2	3	7	n/a	Less than HS None Short OJT	*			R	С		Agriculture, Food & Natural Resources
Agricultural Inspectors (45-2011): Inspect agricultural commodities, processing equipment and facilities, and fish and logging operations to ensure compliance with regulations and laws governing health, quality, and safety.	n	n	n	n	n	4	n/a	Bachelor None Moderate OJT		*		R	С	I	Government & Public Adminstration
Agricultural Sciences Teachers, Postsecondary (25-1041): Teach courses in agricultural sciences, such as agronomy, dairy sciences, poultry sciences, fisheries management, horticultural sciences, range management, and soil conservation. May primarily teach or teach and conduct research.	n	n	n	n	n	4	n/a	Doctorate None None				S	I	R	Education & Training
Agricultural Workers, All Other (45-2099): All agricultural workers not listed separately.	34	33	0	1	1	•	\$18.89	Less than HS None Short OJT							Agriculture, Food & Natural Resources
Air Traffic Controllers (53-2021): Control air traffic on and within vicinity of airport and movement of air traffic between altitude sectors and control centers according to established procedures and policies.	447	437	0	14	14	4	\$67.11	Associate None Long OJT	*	*		E	С	R	Transportation, Distribution & Logistics
Aircraft Cargo Handling Supervisors (53-1011): Direct ground crew in loading, unloading, securing, and staging aircraft cargo or baggage. Determine the quantity and orientation of cargo and compute aircraft center of gravity. May accompany aircraft as member of flight crew.	n	n	n	n	n	4	\$24.57	High School < 5 years None		*		E	R	(Transportation, Distribution & Logistics
Aircraft Mechanics and Service Technicians (49-3011): Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems.	245	255	1	6	7	71	\$29.25	Postsecondary None None	*	*		R	С	I	Transportation, Distribution & Logistics
Aircraft Structure, Surfaces, Rigging, and Systems Assemblers (51-2011): Assemble, fit, fasten, and install parts of airplanes, space vehicles, or missiles, such as tails, wings, fuselage, bulkheads, stabilizers, landing gear, rigging and control equipment, or heating and ventilating systems.	n	n	n	n	n	•	n/a	High School None Moderate OJT	*	*		R	С		Manufacturing

Occupation, SOC Code, and Description		mpshire or syment	Avg.	tional Pro Annual O _l Replace	- penings	Future Outlook	_	Entry-Level Education Experience Training	pprentice	Military	JH License	Ho Int	ollar tere		Career Cluster
Airfield Operations Specialists (53-2022): Ensure the safe takeoff and landing of commercial and military aircraft. Coordinate between air-traffic control and maintenance; use airfield landing and navigational aids; maintain flight records; implement safety procedures; and apply weather knowledge.	n		n	n	r	Ψ	n/a	High school None Long OJT		*		Е	С	R	Transportation, Distribution & Logistics
Airline Pilots, Copilots, and Flight Engineers (53-2011): Pilot and navigate fixed-wing, multi-engine aircraft, usually on scheduled routes, for the transport of passengers and cargo. Requires FAA certificate and rating for specific aircraft type.	53	54	0	1	. 1	4	n/a	Bachelor < 5 years Moderate OJT		*		R	С	I	Transportation, Distribution & Logistics
Ambulance Drivers and Attendants, Except EMTs (53-3011): Drive ambulance or assist ambulance driver in transporting sick, injured, or convalescent persons. Assist in lifting patients.	98	126	3	2	: 5	7	\$11.52	High School None Moderate OJT	*			R	S	Е	Transportation, Distribution & Logistics
Amusement and Recreation Attendants (39-3091): Perform a variety of duties at amusement or recreation facility. May schedule use of recreation facilities, maintain and provide equipment, or operate amusement concessions and rides.	1,312	1,458	15	55	5 70	^	\$10.04	Less than HS None Short OJT				E	С	R	Hospitality & Tourism
Anesthesiologists (29-1061): Physicians who administer anesthetics prior to, during, or after surgery or other medical procedures.	94	112	2	2	. 4	7	\$131.99	Doctorate None Residency		*	*	I	R	S	Health Science
Animal Breeders (45-2021): Select and breed animals according to their genealogy, characteristics, and offspring. May require knowledge of artificial insemination techniques and equipment use. May involve keeping records on heats, birth intervals, or pedigree.	n	n	n	n	ı r	n n	n/a	High School None Short OJT				R	I		Agriculture, Food & Natural Resources
Animal Control Workers (33-9011): Handle animals for the purpose of investigations of mistreatment, or control of abandoned, dangerous, or unattended animals.	71	74	0	2	. 2	4	\$15.78	High School None Moderate OJT				R	S		Law, Public Safety, Corrections & Security
Animal Scientists (19-1011): Conduct research in the genetics, nutrition, reproduction, growth, and development of domestic farm animals.	n	n	n	n	ı r	4	n/a	Bachelor None None				I	R	С	Agriculture, Food & Natural Resources
Animal Trainers (39-2011): Train animals for riding, harness, security, performance, or obedience, or assisting persons with disabilities. Accustom animals to human voice and contact, and condition animals to respond.	117	129	1	4	. 5	7	\$17.08	High School None Moderate OJT	*	*		R	С	S	Hospitality & Tourism
Anthropologists and Archeologists (19-3091): Study the origin, development, and behavior of human beings. May engage in systematic recovery and examination of material evidence, such as tools or pottery remaining from past human culture.	27	34	1	C) 1	7	\$30.72	Masters None None				I	Α		Science, Technology, Engineering & Math
Anthropology and Archeology Teachers, Postsecondary (25-1061): Teach courses in anthropology or archeology. May primarily teach or teach and conduct research.	n	n	n	n	ı r	, u	n/a	Doctorate None None		*		s	I		Education & Training

	New Ha			tional Pro Annual Op	•	Future	2015 Average	Entry-Level	orentice	Military	License		ollar eres		Career Cluster
Occupation, SOC Code, and Description	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	App	Ξ	돌	1st	2nd	3rd	
Appraisers and Assessors of Real Estate (13-2021): Appraise real property and estimate its fair value. May assess taxes in accordance with prescribed schedules.	326	359	3	5	8	7	\$31.86	Bachelor None Long OJT			*	С	E	ĸ	Government & Public Adminstration
Arbitrators, Mediators, and Conciliators (23-1022): Facilitate negotiation and conflict resolution through dialogue. Resolve conflicts outside of the court system by mutual consent of parties involved.	23	26	0	O) (4	n/a	Bachelor < 5 years Moderate OJT			*	S	Е	С	Law, Public Safety, Corrections & Security
Architects, Except Landscape and Naval (17-1011): Plan and design structures, such as private residences, office buildings, theaters, factories, and other structural property.	326	350	2	5	7	7	n/a	Bachelor None Internship		*	*	Α	I		Architecture & Construction
Architectural and Civil Drafters (17-3011): Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways and bridges.	503	488	0	6	6	4	\$25.34	Associate None None	*			R	С	Α	Architecture & Construction
Architectural and Engineering Managers (11-9041): Plan, direct, or coordinate activities in such fields as architecture and engineering or research and development in these fields.	962	984	2	30	32	7	\$65.77	Bachelor 5+ years None		*		E	I	R	Science, Technology, Engineering & Math
Archivists (25-4011): Appraise, edit, and direct safekeeping of permanent records and historically valuable documents. Participate in research activities based on archival materials.	n	n	n	n	r	Ψ	n/a	Masters None None				С	I	S	Education & Training
Area, Ethnic, and Cultural Studies Teachers, Postsecondary (25-1062): Teach courses pertaining to the culture and development of an area, an ethnic group, or any other group, such as Latin American studies, women's studies, or urban affairs. May primarily teach or teach and conduct research.	36	40	0	1	. 1	7	n/a	Doctorate None None				S	I	Α	Education & Training
Art Directors (27-1011): Formulate design concepts and presentation approaches for visual communications media, such as print, broadcasting, and advertising. Direct workers engaged in art work or layout design.	176	180	0	3	3	ע	\$22.61	Bachelor 5+ years None		*		Α	E		Arts, Audio/Video Technology & Communications
Art, Drama, and Music Teachers, Postsecondary (25-1121): Teach courses in drama, music, and the arts including fine and applied art, such as painting and sculpture, or design and crafts. May primarily teach or teach and conduct research.	422	454	3	8	11	^	\$87,197	Masters None None				S	Α		Education & Training
Artists and Related Workers, All Other (27-1019): All artists and related workers not listed separately.	32	32	0	1	. 1	, u	n/a	Less than HS None Long OJT							Arts, Audio/Video Technology & Communications
Assemblers and Fabricators, All Other (51-2099): All assemblers and fabricators not listed separately.	1,499	1,621	12	32	44	•	\$15.39	High School None Moderate OJT							Manufacturing

Occupation, SOC Code, and Description		mpshire opment	Avg.	tional Pro Annual O Replace	penings	Future Outlool		Entry-Level Education Experience Training	Apprentice	Military	NH License		ollar eres	sts	Career Cluster
Astronomers (19-2011): Observe, research, and interpret celestial and astronomical phenomena to increase basic knowledge and apply such information to practical problems.	n	n	n	r	n r	7	n/a	Doctorate None None		*		I	Α	R	Science, Technology, Engineering & Math
Athletes and Sports Competitors (27-2021): Compete in athletic events.	24	25	0	1	L 1	L Y	n/a	Less than HS None Long OJT		*		R	E	S	Hospitality & Tourism
Athletic Trainers (29-9091): Evaluate and advise individuals to assist recovery from or avoid athletic-related injuries or illnesses, or maintain peak physical fitness. May provide first aid or emergency care.	150	182	3	3	3 6	7	\$46,879	Bachelor None None			*	s	R	I	Health Science
Atmospheric and Space Scientists (19-2021): Investigate atmospheric phenomena and interpret meteorological data gathered by surface and air stations, satellites, and radar to prepare reports and forecasts. Includes weather forecasters.	49	68	2	1	L 3	7	\$34.77	Bachelor None None	*	*		I	R		Science, Technology, Engineering & Math
Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary (25-1051): Teach courses in the physical sciences, except chemistry and physics. May primarily teach or teach and conduct research.	n	n	n	r	n r	u u	\$78,878	Doctorate None None		*		S	I	Α	Education & Training
Audio and Video Equipment Technicians (27-4011): Set up and/or operate audio and video equipment including microphones, speakers, screens, projectors, monitors, recording equipment, wires and cables, or sound and mixing boards.	76	84	1	1	1 2	2 7	\$19.99	Postsecondary None Short OJT	*	*		R	I		Arts, Audio/Video Technology & Communications
Audiologists (29-1181): Assess and treat persons with hearing and related disorders. May fit hearing aids and provide auditory training. May perform research related to hearing problems.	79	103	2	2	2 4	7	n/a	Doctorate None None		*	*	I	S	С	Health Science
Audio-Visual and Multimedia Collections Specialists (25-9011): Prepare, plan, and operate multimedia teaching aids for use in education. May record, catalogue, and file materials.	28	29	0	() (•	\$28.87	Bachelor < 5 years None				С	R	S	Education & Training
Automotive and Watercraft Service Attendants (53-6031): Service automobiles, buses, trucks, boats, and other automotive or marine vehicles with fuel, lubricants, or accessories. May change oil or coolant, lubricate vehicle, replace lights, wiper blades or fan belts, or repair or replace tires.	498	538	4	20) 24	1	\$10.89	Less than HS None Short OJT		*		R	С	•	Transportation, Distribution & Logistics
Automotive Body and Related Repairers (49-3021): Repair and refinish automotive vehicle bodies and straighten vehicle frames.	758	814	6	17	7 23	•	\$19.12	High school None Long OJT	*	*		R	С		Transportation, Distribution & Logistics
Automotive Glass Installers and Repairers (49-3022): Replace or repair broken windshields and window glass in motor vehicles.	49	51	0	1	L 1	u	\$20.95	High School None Moderate OJT	*			R	С		Transportation, Distribution & Logistics

Occupation, SOC Code, and Description	New Ha Emplo 2014	yment	Avg.	i onal Pro j Annual Op Replace	enings	Future Outlook	_	Entry-Level Education Experience Training	Apprentice	Military	NH License	Ho Int	ollar tere: 2nd	sts	Career Cluster
Automotive Service Technicians and Mechanics (49-3023): Diagnose, adjust, repair, or overhaul automotive vehicles.	4,213			113			\$21.51	Postsecondary None Short OJT		*	2	R		_	Transportation, Distribution & Logistics
Avionics Technicians (49-2091): Install, inspect, test, adjust, or repair avionics equipment, such as radar, radio, navigation, and missile control systems in aircraft or space vehicles.	89	89	0	2	2	u	\$29.16	Associate None None	*	*		R	I	С	Transportation, Distribution & Logistics
Baggage Porters and Bellhops (39-6011): Handle baggage for travelers at transportation terminals or for guests at hotels or similar establishments.	37	41	0	1	1	7	\$11.09	High School None Short OJT				R	С	S	Hospitality & Tourism
Bailiffs (33-3011): Maintain order in courts of law.	93	99	1	3	4	u	\$10.94	High School None Moderate OJT				R	E	С	Law, Public Safety, Corrections & Security
Bakers (51-3011): Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods. Pastry chefs in restaurants and hotels are included with <i>Chefs and Head Cooks</i> (35-1011).	512	561	5	11	16	↑	\$12.66	Less than HS None Long OJT	*	*		R	С	E	Hospitality & Tourism
Barbers (39-5011): Provide barbering services, such as cutting, trimming, shampooing, and styling hair, trimming beards, or giving shaves.	526	583	6	10	16	^	n/a	Postsecondary None None	*	*	*	R	E	С	Human Services
Bartenders (35-3011): Mix and serve drinks to patrons, directly or through waitstaff.	3,187	3,547	36	120	156	^	\$10.10	Less than HS None Short OJT	*			E	С	R	Hospitality & Tourism
Bicycle Repairers (49-3091): Repair and service bicycles.	135	168	3	5	8	7	\$11.94	High School None Moderate OJT				R	С	I	Transportation, Distribution & Logistics
Bill and Account Collectors (43-3011): Locate and notify customers of delinquent accounts by mail, telephone, or personal visit. Take payments and post amount to customer's account; prepare statements; initiate repossession proceedings or service disconnection and keep records.	1,467	1,499	3	36	39	71	\$16.28	High School None Moderate OJT				С	E		Finance
Billing and Posting Clerks (43-3021): Compile, compute, and record billing, accounting, statistical, and other numerical data for billing purposes. Prepare billing invoices for services rendered or for delivery or shipment of goods.	1,844	2,078	23	38	61	↑	\$17.92	High School None Moderate OJT				С	E		Transportation, Distribution & Logistics
Biochemists and Biophysicists (19-1021): Study the chemical composition and physical principles of living cells and organisms, their electrical and mechanical energy, and related phenomena. Conduct research on growth, heredity, metabolism, reproduction, or the effects of foods, drugs, or serums.	90	105	2	2	4	7	\$39.92	Doctorate None None		*		I	Α		Science, Technology, Engineering & Math

Occupation, SOC Code, and Description		yment	Avg.	t ional Pro Annual Op Replace	penings	Future Outlook	_	Entry-Level Education Experience Training	Apprentice	Military	NH License		llan eres _{2nd}	ts	Career Cluster
Biological Science Teachers, Postsecondar y (25-1042): Teach courses in biological sciences. May primarily teach or teach and conduct research.	253	282	3	4	. 7	71		Doctorate None None	1	2		s	I		Education & Training
Biological Scientists, All Other (19-1029): All biological scientists not listed separately. Includes Bioinformatics Scientists; Molecular and Cellular Scientists; and Geneticists.	78	81	0	2	. 2	y .	\$44.94	Bachelor None None		*					Science, Technology, Engineering & Math
Biological Technicians (19-4021): Assist biological and medical scientists in laboratories. Set up, operate, and maintain lab instruments and equipment, monitor experiments, make observations, and calculate and record results. May analyze organic substances, such as blood, food, and drugs.	253	286	3	7	10	7	\$21.88	Bachelor None None	*	*		R	I	(Agriculture, Food & Natural Resources
Biomedical Engineers (17-2031): Apply knowledge of engineering, biology, and biomechanical principles to the design, development, and evaluation of biological and health systems and products, such as artificial organs, prostheses, instrumentation, and medical information systems.	115	144	3	3	6	7	\$45.49	Bachelor None None		*	*	I	R	С	Health Science
Boilermakers (47-2011): Construct, assemble, maintain, and repair stationary steam boilers and boiler house auxiliaries. Assemble boiler frame tanks or vats, using blueprints, and test assembled vessels. Inspect and repair fittings, such as safety valves, regulators, or water columns.	193	210	2	3	5	7	\$33.63	High School None Apprentice	*	*		R	С		Architecture & Construction
Bookkeeping, Accounting, and Auditing Clerks (43-3031): Compute, classify, and record numerical data to keep financial records complete. Perform routine calculating, posting, and verifying to obtain primary financial data to maintain accounting records.	8,071	7,449	0	79	79	, A	\$19.02	High School None Moderate OJT	*	*		С	E		Business Management & Administration
Brickmasons and Blockmasons (47-2021): Lay and bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, and terracotta block with mortar and other substances to construct or repair walls, partitions, arches, sewers, and other structures.	364	418	5	3	8	7	\$23.14	High School None Apprentice	*	*		R	С	1 1	Architecture & Construction
Bridge and Lock Tenders (53-6011): Operate and tend bridges, canal locks, and lighthouses to permit marine passage on inland waterways, near shores, and at danger points in waterways. May supervise operations. Includes drawbridge operators, lock operators, and slip bridge operators.	n	n	n	n	n	4	n/a	High School None Short OJT				R	С	- 1	Transportation, Distribution & Logistics
Broadcast News Analysts (27-3021): Analyze, interpret, and broadcast news received from various sources.	n	n	n	n	n	y.	n/a	Bachelor None None		*		Α	S	Ε	Arts, Audio/Video Technology & Communications
Broadcast Technicians (27-4012): Set up, operate, and maintain electronic equipment used to transmit radio and television programs. Control audio equipment to regulate volume and quality of sound during broadcasts. Operate transmitter to broadcast radio or television programs.	137	150	1	3	4	71	n/a	Associate None Short OJT	*	*		R	С	I	Arts, Audio/Video Technology & Communications
Brokerage Clerks (43-4011): Perform duties related to the purchase, sale or holding of securities. Write orders for stock purchases or sales, compute taxes, verify transactions, accept and deliver securities, track stock price fluctuations, distribute dividends, and keep records of transactions.	n	n	n	n	n	1	\$25.25	High School None Moderate OJT				С	E	S	Finance

	New Ha			t ional Pro Annual Op		Future	2015 Average	Entry-Level	orentice	Military	License	He Int	ollar tere:	sts	Career Cluster
Occupation, SOC Code, and Description Budget Analysts (13-2031): Examine budget estimates for completeness, accuracy, and conformance with procedures and regulations. Analyze budgeting and accounting reports.	133	148		Replace	Total 5	Outlook		Education Experience Training Bachelor None None	App	★ Mil	HZ.	1st C	2nd E		Finance
Building Cleaning Workers, All Other (37-2019): All building cleaning workers not listed separately.	56	63	1	1	2	7	\$16.43	Less than HS None Short OJT	*						Hospitality & Tourism
Bus and Truck Mechanics and Diesel Engine Specialists (49-3031): Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines. Includes mechanics working primarily with automobile or marine diesel engines.	844	963	12	14	26	↑	\$22.15	High school None Long OJT	*	*		R	С	I	Transportation, Distribution & Logistics
Bus Drivers, School or Special Client (53-3022): Transport students or special clients, such as the elderly or persons with disabilities. Ensure adherence to safety rules. May assist passengers in boarding or exiting.	2,541	2,900	36	33	69	↑	\$14.23	High School None Short OJT				R	C	S	Transportation, Distribution & Logistics
Bus Drivers, Transit and Intercity (53-3021): Drive bus or motor coach, including regular route operations, charters, and private carriage. May assist passengers with baggage. May collect fares or tickets.	328	368	4	4	8	7	\$18.14	High School None Moderate OJT	*	*		R	S	E	Transportation, Distribution & Logistics
Business Operations Specialists, All Other (13-1199): All business operations specialists not listed separately.	5,374	5,794	42	64	106	^	\$31.90	Bachelor None None	*	*	*				Business Management & Administration
Business Teachers, Postsecondary (25-1011): Teach courses in business administration and management, such as accounting, finance, human resources, labor and industrial relations, marketing, and operations research. May primarily teach or teach and conduct research.	360	380	2	6	8	7	\$115,018	Doctorate None None				S	E	I	Education & Training
Butchers and Meat Cutters (51-3021): Cut, trim, or prepare consumer-sized portions of meat for use or sale in retail establishments.	677	742	6	13	19	↑	\$16.84	Less than HS None Long OJT	*			R	C	E	Manufacturing
Buyers and Purchasing Agents, Farm Products (13-1021): Purchase farm products either for further processing or resale. Includes tree farm contractors, grain brokers and market operators, grain buyers, and tobacco buyers.	n	n	n	n	n	u	n/a	Bachelor None Long OJT				E	С	R	Agriculture, Food & Natural Resources
Cabinetmakers and Bench Carpenters (51-7011): Cut, shape, and assemble wooden articles or set up and operate a variety of woodworking machines, such as power saws, jointers, and mortisers to surface, cut, or shape lumber or to fabricate parts for wood products.	396	423	3	3	6	7	\$15.98	High School None Moderate OJT	*			R	С		Manufacturing
Camera Operators, Television, Video, and Motion Picture (27-4031): Operate television, video, or motion picture camera to record images or scenes for various purposes, such as TV broadcasts, advertising, video production, or motion pictures.	113	120	1	1	2	y .	\$17.86	Bachelor None None	*	*		R	Α		Arts, Audio/Video Technology & Communications

			1	tional Pro			2015		ntice	Military	ense		ollar		
Occupation, SOC Code, and Description	Emplo 2014		_	Annual Op Replace		Future Outlook	_	Entry-Level Education Experience Training	Appre	∕lilitaı	IH Lic	Int 1st	eres 2nd		Career Cluster
Captains, Mates, and Pilots of Water Vessels (53-5021): Command or supervise operations of ships and water vessels, such as tugboats and ferryboats. Required to hold a license issued by U.S. Coast Guard. Excludes Motorboat Operators	94	112		4	. 6	_	n/a	Postsecondary < 5 years None		*	2	E	R	C	Transportation, Distribution & Logistics
Cardiovascular Technologists and Technicians (29-2031): Conduct tests on pulmonary or cardiovascular systems of patients for diagnostic purposes. May conduct or assist in electrocardiograms, cardiac catheterizations, pulmonary functions, lung capacity, and similar tests.	185	218	3	4	. 7	7	\$29.88	Associate None None		*		R	S	I	Health Science
Career/Technical Education Teachers, Middle School (25-2023): Teach occupational, career and technical, or vocational subjects in public or private schools at the middle, intermediate, or junior high level, which falls between elementary and senior high school.	59	61	0	1	. 1	2	\$61,601	Bachelor < 5 years Internship			*	S	Α	O	Education & Training
Career/Technical Education Teachers, Secondary School (25-2032): Teach occupational, career and technical, or vocational subjects at the secondary school level in public or private schools.	398	390	0	9	g	y .	\$57,842	Bachelor < 5 years Internship			*	S	Α		Education & Training
Cargo and Freight Agents (43-5011): Expedite and route movement of incoming and outgoing cargo and freight shipments in airline, train, and trucking terminals, and shipping docks. Take orders and arrange pickup of freight and cargo. Prepare and examine bills of lading.	64	70	1	2	. 3	71	\$24.51	High School None Short OJT	*	*		С	E	R	Transportation, Distribution & Logistics
Carpenters (47-2031): Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms, building frameworks - including partitions, joists, studding, and rafters - and stairways, window and door frames, and hardwood floors. May install cabinets, siding, or drywall.	4,138	4,353	22	48	70	71	\$20.88	High School None Apprentice	*	*		R	С	I	Architecture & Construction
Carpet Installers (47-2041): Lay and install carpet from rolls or blocks on floors. Install padding and trim flooring materials.	102	100	0	1	. 1	4	\$17.35	Less than HS None Short OJT	*			R	E	С	Architecture & Construction
Cartographers and Photogrammetrists (17-1021): Collect, analyze, and interpret geographic information from geodetic surveys, aerial photographs, and satellite data. Research, study, and prepare maps and spatial data in digital or graphic form. May work with GIS software.	88	113	2	3	5	71	\$24.03	Bachelor None None	*	*		R	I		Science, Technology, Engineering & Math
Cashiers (41-2011): Receive and disburse money in establishments other than financial institutions. May use electronic scanners, cash registers, or related equipment. May process credit or debit card transactions and validate checks.	21,788	22,304	52	927	979	71	\$9.86	Less than HS None Short OJT				С	E		Marketing
Cement Masons and Concrete Finishers (47-2051): Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; and use saws to cut expansion joints.	194	211	2	2	. 4	7	\$21.77	Less than HS None Moderate OJT	*	*		R	E	С	Architecture & Construction
Chefs and Head Cooks (35-1011): Direct and may participate in the preparation, seasoning, and cooking of salads, soups, fish, meats, vegetables, desserts, or other foods. May plan and price menu items, order supplies, and keep records and accounts.	759	831	7	11	. 18	↑	\$20.88	High School 5+ years None	*	*		E	R	Α	Hospitality & Tourism

		yment	Avg.	ional Pro	enings	Future	2015 Average	Entry-Level	prentice	Military	License	Ho	ollar tere:	sts	Career Cluster
Occupation, SOC Code, and Description Chemical Engineers (17-2041): Design chemical plant equipment and devise manufacturing processes for chemicals and products, such as gasoline, synthetic rubber, plastics, detergents, cement, paper, and pulp, applying principles and technology of chemistry, physics, and engineering.	2014 n		Growth n	Replace n	Total n	Outlook		Education Experience Training Bachelor None None	Api		★	1st I	2nd R		Science, Technology, Engineering & Math
Chemical Equipment Operators and Tenders (51-9011): Operate or tend equipment to control chemical changes or reactions in the processing of industrial or consumer products. Equipment used includes devulcanizers, steam-jacketed kettles, and reactor vessels.	327	343	2	10	12	71	\$19.28	High School None Moderate OJT	*	*		R	С		Manufacturing
Chemical Plant and System Operators (51-8091): Control or operate entire chemical processes or system of machines.	n	n	n	n	n	Ä	n/a	High school None Long OJT	*	*		R	С		Manufacturing
Chemical Technicians (19-4031): Conduct chemical and physical laboratory tests to assist scientists in making qualitative and quantitative analyses of solids, liquids, and gaseous materials for research and development, quality control, maintenance of environmental standards, and other work.	150	158	1	4	5	4	\$20.22	Associate None Moderate OJT	*	*		I	R	С	Manufacturing
Chemistry Teachers, Postsecondary (25-1052): Teach courses related to the chemical and physical properties or compositional changes of substances. Work may include instruction in qualitative and quantitative chemical analysis methods. May primarily teach or teach and conduct research.	90	100	1	2	3	7	\$91,474	Doctorate None None		*		S	I	R	Education & Training
Chemists (19-2031): Conduct qualitative and quantitative chemical analyses or experiments in laboratories for quality or process control or to develop new products or knowledge.	294	300	1	6	7	2	\$30.42	Bachelor None None		*		I	R	С	Science, Technology, Engineering & Math
Chief Executives (11-1011): Determine and formulate policies and provide overall direction of companies or private and public organizations within guidelines set by a board of directors or similar body. Plan, direct, or coordinate operational activities at the highest level of management.	1,452	1,457	0	25	25	1	\$88.52	Bachelor 5+ years None		*		E	С		Business Management & Administration
Child, Family, and School Social Workers (21-1021): Provide social services and assistance to improve the social and psychological functioning of children and their families. May arrange adoptions or find foster homes for children. In schools, deal with issues like teen pregnancy or misbehavior.	585	650	6	14	20	↑	\$20.44	Bachelor None None			*	S	E	Α	Human Services
Childcare Workers (39-9011): Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play.	4,201	4,460	26	124	150	7	\$10.67	High School None Short OJT	*		*	S	Α	С	Human Services
Chiropractors (29-1011): Assess, treat, and care for patients by manipulation of spine and musculoskeletal system. May provide spinal adjustment or address sacral or pelvic misalignment.	122	140	2	2	4	7	\$47.13	Doctorate None None		*	*	S	I	R	Health Science
Choreographers (27-2032): Create and teach dance. May direct and stage presentations.	n	n	n	n	n	•	n/a	High School 5+ years Long OJT				Α	S	E	Arts, Audio/Video Technology & Communications

	New Ha			i onal Pro Annual Op		Future	2015 Average	Entry-Level	rentice	Military	License	Holl Inter		Career Cluster
Occupation, SOC Code, and Description	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	Арр	Μiii	들 1	st 2r	d 3r	d
Civil Engineering Technicians (17-3022): Apply theory and principles of civil engineering in planning, designing, and overseeing construction and maintenance of structures and facilities, under the direction of engineering staff or physical scientists.	156	165	1	4	5	u	\$22.07	Associate None None		*		R C		Architecture & Construction
Civil Engineers (17-2051): Perform engineering duties to plan, design, and oversee construction and maintenance of building structures and facilities such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, or water and sewage systems.	1,142	1,252	11	34	45	↑	\$35.58	Bachelor None None		* 1	* 1	R I	c	Architecture & Construction
Claims Adjusters, Examiners, and Investigators (13-1031): Review settled claims to determine that payments and settlements are made in accordance with company practices and procedures. Confer with legal counsel on claims requiring litigation. May also settle insurance claims.	1,372	1,432	6	34	40	71	\$32.24	High school None Long OJT		7	* (C E	I	Finance
Cleaners of Vehicles and Equipment (53-7061): Wash or otherwise clean vehicles, machinery, and other equipment. Use such materials as water, cleaning agents, brushes, cloths, and hoses.	1,038	1,137	10	36	46	↑	\$11.79	Less than HS None Short OJT	*		ı	R C	: E	Transportation, Distribution & Logistics
Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders (51-9192): Operate or tend machines to wash or clean products, such as barrels or kegs, glass items, tin plate, food, pulp, coal, plastic, or rubber to remove impurities.	179	193	1	5	6	7	\$15.58	Less than HS None Moderate OJT			ı	R C		Manufacturing
Clergy (21-2011): Conduct religious worship and perform other spiritual functions associated with beliefs and practices of religious faith or denomination. Provide spiritual and moral guidance and assistance to members.	784	831	5	17	22	71	\$28.10	Bachelor None Moderate OJT		*	:	S E	Α	. Human Services
Clinical, Counseling, and School Psychologists (19-3031): Diagnose and treat mental disorders, learning disabilities, and cognitive, behavioral, and emotional problems using individual, child, family, and group therapies. May design and implement behavior modification programs.	468	556	9	10	19	↑	\$34.87	Doctorate None Internship		* 1	*	I S	5 A	. Human Services
Coaches and Scouts (27-2022): Instruct or coach groups or individuals in the fundamentals of sports. Demonstrate techniques and methods of participation. May evaluate athletes' strengths and weaknesses as possible recruits or to improve athletes' technique to prepare them for competition.	1,456	1,547	9	49	58	71	n/a	Bachelor None None			;	S E	: R	Education & Training
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders (51-9121): Set up, operate, or tend machines to coat or paint products, such as glass, cloth, ceramics, metal, plastic, paper, or wood, with lacquer, silver, copper, rubber, varnish, glaze, enamel, or rust-proof material.	434	445	1	8	g	u	\$16.83	High School None Moderate OJT	*		ı	R C	I	Manufacturing
Coil Winders, Tapers, and Finishers (51-2021): Wind wire coils used in electrical components such as resistors and transformers, and in electrical equipment and instruments such as field cores, bobbins, armature cores, electrical motors, generators, and control equipment.	129	125	0	2	2	•	\$16.09	High School None Moderate OJT				R C	I	Manufacturing
Coin, Vending, and Amusement Machine Servicers and Repairers (49-9091): Install, service, adjust or repair coin, vending, or amusement machines including video games, juke boxes, pinball machines, or slot machines.	41	37	0	0	C	•	\$17.59	High School None Short OJT	*		ı	R C	I	Manufacturing

	New Ha		i	t ional Pro j Annual Op		Future	2015 Average	Entry-Level	prentice	Military	License	Ho Inte	llan eres		Career Cluster
Occupation, SOC Code, and Description	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	Ap	Ξ	Z :	1st 2	2nd	3rd	
Combined Food Preparation and Serving Workers, Including Fast Food (35-3021): Perform duties which combine preparing and serving food and nonalcoholic beverages.	12,218	13,705	149	395	544	↑	\$9.30	Less than HS None Short OJT		*		С	R	E	Hospitality & Tourism
Commercial and Industrial Designers (27-1021): Develop and design manufactured products, such as cars, home appliances, and children's toys. Combine artistic talent with research on product use, marketing, and materials to create the most functional and appealing product design.	110	111	0	3	3	7	\$35.31	Bachelor None None	*			А	E		Arts, Audio/Video Technology & Communications
Commercial Divers (49-9092): Using scuba gear, work below surface of water to inspect, repair, remove, or install equipment and structures. May use tools such as drills, torches, or welding equipment. May conduct tests or experiments, rig explosives, or photograph structures or marine life.	36	44	1	0	1	71	n/a	Postsecondary None Moderate OJT		*		R	С		Architecture & Construction
Commercial Pilots (53-2012): Pilot and navigate the flight of fixed-wing aircraft on nonscheduled air carrier routes, or helicopters. Requires Commercial Pilot certificate. Includes charter pilots with similar certification, and air ambulance and air tour pilots. Excludes airline pilots.	212	227	2	5	7	7	n/a	High School None Moderate OJT	*	*		R	E	I	Transportation, Distribution & Logistics
Communications Equipment Operators, All Other (43-2099): All communications equipment operators not listed separately.	n	n	n	n	n	•	n/a	High School None Short OJT		*					Business Management & Administration
Communications Teachers, Postsecondary (25-1122): Teach courses in communications, such as organizational communications, public relations, radio/television broadcasting, and journalism. May primarily teach or teach and conduct research.	72	76	0	1	1	Ä	\$76,087	Doctorate None None				s	Α	I	Education & Training
Community and Social Service Specialists, All Other (21-1099): All community and social service specialists not listed separately.	664	733	7	13	20	↑	\$21.10	Masters None None	*						Human Services
Community Health Workers (21-1094): Assist individuals and communities to adopt healthy behaviors. Conduct outreach for medical personnel or health organizations to implement programs in the community that promote, maintain, and improve individual and community health.	160	189	3	3	6	7	\$18.29	High School None Short OJT	*			S	E	I	Human Services
Compensation and Benefits Managers (11-3111): Plan, direct, or coordinate compensation and benefits activities of an organization.	100	111	1	3	4	71	\$51.22	Bachelor 5+ years None		*		E	С	S	Business Management & Administration
Compensation, Benefits, and Job Analysis Specialists (13-1141): Conduct programs of compensation and benefits and job analysis for employer. May specialize in specific areas, such as position classification and pension programs.	270	283	1	7	8	7	\$29.57	Bachelor < 5 years None				С	E		Business Management & Administration
Compliance Officers (13-1041): Examine, evaluate, and investigate eligibility for or conformity with laws and regulations governing contract compliance of licenses and permits, and perform other compliance and enforcement inspection and analysis activities not classified elsewhere.	1,113	1,187	7	16	23	7	\$32.96	Bachelor None Moderate OJT	*	*		С	E	I	Government & Public Adminstration

	Emplo	yment	Avg.	i onal Pro Annual Op	enings	Future	_	•	prentice	Military	l License	Int	ollan eres	sts	Career Cluster
Occupation, SOC Code, and Description Computer and Information Research Scientists (15-1111): Conduct research into fundamental computer and information science as theorists, designers, or inventors. Develop solutions to problems in the field of computer hardware and software.	282	280	Growth 0	Replace 4	Total	Outlook		Education Experience Training Doctorate None None	Ap	★		1st	2nd R		Science, Technology, Engineering & Math
Computer and Information Systems Managers (11-3021): Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming.	1,819	2,127	31	22	53	↑	\$63.53	Bachelor 5+ years None	*	*		Е	С		Business Management & Administration
Computer Hardware Engineers (17-2061): Research, design, develop, or test computer or computer-related equipment for commercial, industrial, military, or scientific use. May supervise the manufacturing and installation of computer or computer-related equipment and components.	221	245	2	4	6	7	\$59.78	Bachelor None None		*	*	I	R	С	Science, Technology, Engineering & Math
Computer Network Architects (15-1143): Design and implement computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communications networks. Perform network modeling, analysis, and planning.	350	393	4	4	8	7	\$45.16	Bachelor 5+ years None	*	*		I	С	E	Information Technology
Computer Network Support Specialists (15-1152): Analyze, test, evaluate, and troubleshoot existing network systems, such as local area network (LAN), wide area network (WAN), and Internet systems. Perform network maintenance to ensure correct operation with minimal interruption.	512	560	5	7	12	1	\$29.71	Associate None None	*	*		R	E	С	Information Technology
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (51-4012): Develop programs to control machining or processing of metal or plastic parts by automatic machine tools, equipment, or systems.	159	199	4	5	9	7	\$28.07	High school None Long OJT	*	*		С	I	R	Manufacturing
Computer Occupations, All Other (15-1199): All computer occupations not listed separately.	723	795	7	9	16	^	\$38.39	Bachelor None None	*	*					Information Technology
Computer Operators (43-9011): Monitor and control computer and peripheral data processing equipment to process business, scientific, engineering, and other data. Monitor and respond to operating and error messages. May enter commands at a computer terminal or set device controls.	327	272	0	2	2	•	\$21.08	High School None Moderate OJT	*	*		С	R	I	Business Management & Administration
Computer Programmers (15-1131): Create, modify, and test code, forms, and scripts that allow computer applications to run. May assist software developers by analyzing user needs and designing solutions. May develop and write programs to store, locate, and retrieve specific documents or data.	1,703	1,515	0	42	42	2	\$35.58	Bachelor None None	*	*		I	С	R	Information Technology
Computer Science Teachers, Postsecondary (25-1021): Teach courses in computer science. May specialize in a field of computer science, such as the design and function of computers or operations and research analysis. May primarily teach or teach and conduct research.	96	102	1	2	3	2	\$93,745	Doctorate None None		*		S	I	С	Education & Training
Computer Systems Analysts (15-1121): Analyze science, engineering, business, and other data processing problems to implement and improve computer systems. Analyze requirements, problems, and procedures to improve systems. Review system capabilities, workflow, and limitations.	2,242	2,670	43	29	72	↑	\$42.78	Bachelor None None	*	*		I	С	R	Information Technology

	New Ha			t ional Pro j Annual Op		Future	2015 Average	Entry-Level	rentice	Military	License	H	ollar tere:		Career Cluster
Occupation, SOC Code, and Description	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	Арр	Mil	¥	1st	2nd	3rd	
Computer User Support Specialists (15-1151): Provide technical assistance to computer system users. Answer questions or resolve computer problems for clients in person, via telephone or from remote location. May provide assistance concerning the use of computer hardware and software.	2,456	2,753	30	32	62	↑	\$26.78	Some college None None	*			R	I	С	Information Technology
Computer, Automated Teller, and Office Machine Repairers (49-2011): Repair, maintain, or install computers, word processing systems, automated teller machines, and electronic office machines such as duplicating and fax machines.	865	915	5	17	22	7	\$20.98	Some college None Short OJT	*	*		R	С	I	Manufacturing
Computer-Controlled Machine Tool Operators, Metal and Plastic (51-4011): Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.	1,806	2,258	45	55	100	↑	\$17.76	High School None Moderate OJT	*			R	С		Manufacturing
Concierges (39-6012): Assist patrons at hotel, apartment, or office building with personal services. May take messages, arrange or give advice on transportation, business services or entertainment, or monitor guest requests for housekeeping and maintenance.	n	n	n	n	n	u	\$13.39	High School None Moderate OJT				S	E	С	Hospitality & Tourism
Conservation Scientists (19-1031): Manage, improve, and protect natural resources to maximize use without damaging the environment. May conduct soil surveys and develop plans to eliminate soil erosion or protect rangelands. May identify best ways to conserve soil and water.	42	45	0	2	2	7	\$36.75	Bachelor None None	*		*	I	R	E	Science, Technology, Engineering & Math
Construction and Building Inspectors (47-4011): Inspect structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations. Inspections may be general or limited to a specific area, such as electrical or plumbing.	322	346	2	9	11	↑	\$26.88	High School 5+ years Moderate OJT	*	*	*	R	С	I	Government & Public Adminstration
Construction and Related Workers, All Other (47-4099): All construction and related workers not listed separately. Includes Solar Thermal Installers and Technicians, and Weatherization Installers and Technicians.	240	248	1	4	5	n	\$23.55	High School None Moderate OJT	*	*					Architecture & Construction
Construction Laborers (47-2061): Perform tasks involving physical labor at construction sites. Operate hand or power tools such as air hammers, earth tampers, cement mixers, or hoists. Clean or prepare sites, dig trenches, set excavation braces, erect scaffolding, or clean up rubble or debris.	3,632	3,937	30	72	102	↑	\$16.07	Less than HS None Short OJT	*			R	С	E	Architecture & Construction
Construction Managers (11-9021): Plan, direct, or coordinate - usually through subordinate supervisors - construction and maintenance of structures, facilities, and systems. Participate in conceptual development and oversee organization, schedule, budget, and implementation.	1,385	1,418	3	19	22	7	\$42.70	Bachelor None Moderate OJT		*		E	R	С	Architecture & Construction
Control and Valve Installers and Repairers, Except Mechanical Door (49-9012): Install, repair, and maintain mechanical regulating and controlling devices, such as electric meters, gas regulators, thermostats, safety and flow valves, and other mechanical governors.	160	157	0	6	6	u	\$26.18	High School None Moderate OJT	*	*		R	С	I	Architecture & Construction
Conveyor Operators and Tenders (53-7011): Control or tend conveyors or conveyor systems that move materials or products to and from stockpiles, processing stations, departments, or vehicles. May control speed and routing of materials or products.	40	41	0	1	1	2	\$15.76	Less than HS None Short OJT	*			R	С	E	Architecture & Construction

	Emplo	yment	Avg.	t ional Pro j Annual Op	enings	Future	_	•	prentice	Military	H License	Int	ollar eres	sts	Career Cluster
Occupation, SOC Code, and Description Cooks, All Other (35-2019): All cooks not listed separately.	2014	2024	Growtr	Replace	Total	Outlook	Wage	Education Experience Training	Αķ	Σ	Ž	1st	2na	3ra	
	152	160	1	4	5	4	\$16.14	Less than HS None Moderate OJT							Hospitality & Tourism
Cooks, Fast Food (35-2011): Prepare and cook food in a fast food restaurant with a limited menu. Duties of these cooks are limited to preparation of a few basic items and normally involve operating large-volume, single-purpose cooking equipment.	1,450	1,246	0	38	38	2	\$10.09	Less than HS None Short OJT	*			R	С	E	Hospitality & Tourism
Cooks, Institution and Cafeteria (35-2012): Prepare and cook large quantities of food for institutions such as schools, hospitals, or cafeterias.	1,510	1,637	13	40	53	^	\$14.81	Less than HS None Short OJT	*	*		R	С	S	Hospitality & Tourism
Cooks, Restaurant (35-2014): Prepare, season, and cook dishes such as soups, meats, vegetables, or desserts in restaurants. May order supplies, keep records and accounts, price items on menu, or plan menu.	5,276	6,124	85	140	225	1	\$12.95	Less than HS < 5 years Moderate OJT	*			R	E	Α	Hospitality & Tourism
Cooks, Short Order (35-2015): Prepare and cook to order a variety of foods that require only a short preparation time. May take orders from customers and serve patrons at counters or tables.	3,228	3,028	0	85	85	, A	\$9.69	Less than HS None Short OJT				R	С	E	Hospitality & Tourism
Cooling and Freezing Equipment Operators and Tenders (51-9193): Operate or tend equipment, such as cooling and freezing units, refrigerators, batch freezers, and freezing tunnels to cool or freeze products, food, blood plasma, and chemicals.	n	n	n	n	n	y .	n/a	High School None Moderate OJT	*			R	С	I	Manufacturing
Correctional Officers and Jailers (33-3012): Guard inmates in penal or rehabilitative institutions in accordance with established regulations and procedures. May guard prisoners in transit between jail, courtroom, prison, or other point.	1,013	1,062	5	28	33	7	\$20.26	High School None Moderate OJT	*	*	*	R	E	С	Law, Public Safety, Corrections & Security
Correspondence Clerks (43-4021): Compose electronic correspondence or letters in reply to requests for merchandise, damage claims, credit and other information, delinquent accounts, incorrect billings, or unsatisfactory services. May gather data to formulate reply and prepare correspondence.	25	23	0	1	1	4	n/a	High School None Short OJT				С	E		Business Management & Administration
Cost Estimators (13-1051): Prepare cost estimates for product manufacturing, construction projects, or services to aid management in bidding on or determining price of product or service. May specialize according to particular service performed or type of product manufactured.	691	739	5	20	25	7	\$33.16	Bachelor None None		*		С	E	R	Architecture & Construction
Costume Attendants (39-3092): Select, fit, and take care of costumes for cast members, and aid entertainers.	n	n	n	n	n	•	n/a	High School None Short OJT	*			С	R		Arts, Audio/Video Technology & Communications
Counselors, All Other (21-1019): All counselors not listed separately.	240	267	3	5	8	7	\$16.98	Masters None None		*					Human Services

	New Ha	yment	Avg.	tional Pro	enings	Future	2015 Average	Entry-Level	prentice	Military	License	Hol Inte	resi	ts	Career Cluster
Occupation, SOC Code, and Description Counter and Rental Clerks (41-2021): Receive orders, generally in person, for repairs, rentals, and services. May describe available options, compute cost, and accept payment.	2,079	2,209		Replace 52	Total 65	Outlook	\$14.99	Education Experience Training Less than HS None Short OJT	Api	Mil		1st 2	nd 3		Marketing
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop (35-3022): Serve food to diners at counter or from a steam table. Counter attendants who also wait tables are included in <i>Waiters and Waitresses</i> (35-3031).	2,300	2,461	16	138	154	7	\$10.25	Less than HS None Short OJT				R	s	E	Hospitality & Tourism
Couriers and Messengers (43-5021): Pick up and deliver messages, documents, packages, and other items between offices or departments within an establishment or directly to other business concerns, traveling by foot, bicycle, motorcycle, automobile, or public conveyance.	661	721	6	8	14	↑	\$11.33	High School None Short OJT		*		R	С	- 1	Transportation, Distribution & Logistics
Court Reporters (23-2091): Capture, store, retrieve, and transcribe pretrial and trial proceedings or other information using verbatim methods and equipment. Includes stenocaptioners who operate equipment to provide captioning of live or prerecorded broadcasts for hearing-impaired viewers.	74	79	0	2	2	y	n/a	Postsecondary None Short OJT		*	*	С	E	`	Law, Public Safety, Corrections & Security
Court, Municipal, and License Clerks (43-4031): Perform clerical duties for courts, municipalities, or government licensing agencies. May prepare case dockets; draft agendas or bylaws for town or city council; keep fiscal records; and issue licenses or permits, administer tests, or collect fees.	456	481	2	3	5	y .	\$18.25	High School None Moderate OJT				С	E	5	Government & Public Adminstration
Craft Artists (27-1012): Create or reproduce hand-made objects for sale and exhibition using a variety of techniques, such as welding, weaving, pottery, and needlecraft.	77	76	0	1	1	4	\$38.01	Less than HS None Long OJT	*	*		A	R	E	Arts, Audio/Video Technology & Communications
Crane and Tower Operators (53-7021): Operate mechanical boom and cable or tower and cable equipment to lift and move materials, machines, or products in many directions.	n	n	n	n	n	n	\$23.96	High School < 5 years Moderate OJT	*	*		R	С	1 1	Architecture & Construction
Credit Analysts (13-2041): Analyze credit data and financial statements of individuals or firms to determine the degree of risk involved in extending credit or lending money. Prepare reports with credit information for use in decision making.	182	194	1	8	9	7	\$32.21	Bachelor None None				С	E	I	Finance
Credit Authorizers, Checkers, and Clerks (43-4041): Authorize credit charges against customer accounts. Investigate history and credit standing of individuals or business establishments applying for credit. May interview applicants, or notify customers of acceptance or rejection of credit.	149	149	0	1	1	u	\$18.74	High School None Moderate OJT				С	E	S	Finance
Credit Counselors (13-2071): Advise and educate individuals or organizations on acquiring and managing debt. Provide guidance on the best loan type and explain requirements or restrictions. May develop debt management plans or provide budget, mortgage, and bankruptcy counseling.	149	166	2	2	4	7	\$23.70	Bachelor None Moderate OJT				E :	s	С	Human Services
Criminal Justice and Law Enforcement Teachers, Postsecondary (25-1111): Teach courses in criminal justice, corrections, and law enforcement administration. May primarily teach or teach and conduct research.	26	30	0	0	O	y .	\$68,737	Doctorate None None				S	I		Education & Training

Occupation, SOC Code, and Description	New Ha Emplo 2014	yment	Avg.	ional Pro Annual Op Replace	enings	Future Outlook	_	Entry-Level Education Experience Training	pprentice	Military	I License	Holla ntere	sts	Career Cluster
Crossing Guards (33-9091): Guide or control vehicular or pedestrian traffic at such places as streets, schools, railroad crossings, or construction sites.	480	513		9	12			Less than HS None Short OJT	A	2 2	S			Law, Public Safety, Corrections & Security
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders (51-9021): Set up, operate, or tend machines to crush, grind, or polish materials such as coal, glass, grain, stone, food, or rubber.	126	124	0	3	3	•	\$17.77	High School None Moderate OJT	*		R	С	I	Manufacturing
Curators (25-4012): Administer collections, such as artwork, collectibles, historic items, or scientific specimens of museums or other institutions. May conduct instructional, research, or public service activities of institution.	76	80	0	2	2	7	\$19.66	Masters None None			E	С		Education & Training
Customer Service Representatives (43-4051): Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints. Excludes individuals whose duties are primarily installation, sales, or repair.	9,100	9,995	90	224	314	↑	\$17.64	High School None Short OJT		*	E	С	S	Business Management & Administration
Cutters and Trimmers, Hand (51-9031): Use hand tools or hand-held power tools to cut and trim a variety of manufactured items, such as carpet, fabric, stone, glass, or rubber.	37	33	0	1	1	•	\$15.72	Less than HS None Short OJT	*		R	С		Manufacturing
Cutting and Slicing Machine Setters, Operators, and Tenders (51-9032): Set up, operate, or tend machines that cut or slice materials such as glass, stone, cork, rubber, tobacco, food, paper, or insulating material.	211	194	0	4	4	•	\$17.40	High School None Short OJT	*		R	С		Manufacturing
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic (51-4031): Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material.	519	441	0	7	7	u	\$16.70	High School None Moderate OJT	*		R	С	I	Manufacturing
Dancers (27-2031): Perform dances. May perform on stage, for on-air broadcasting, or for video recording.	n	n	n	n	n	4	n/a	Less than HS None Long OJT			A	R		Arts, Audio/Video Technology & Communications
Data Entry Keyers (43-9021): Operate data entry device, such as keyboard or photo composing perforator. Duties may include verifying data and preparing materials for printing.	1,442	1,430	0	18	18	u	\$13.99	High School None Moderate OJT	*		c	R	E	Business Management & Administration
Database Administrators (15-1141): Administer, test, and implement computer databases, applying knowledge of database management systems. Coordinate changes to computer databases. May plan, coordinate, and implement security measures to safeguard computer databases.	507	572	6	11	17	1	\$40.45	Bachelor < 5 years None	*	*	c	I	E	Information Technology
Demonstrators and Product Promoters (41-9011): Demonstrate merchandise and answer questions for the purpose of creating public interest in buying the product. May sell demonstrated merchandise.	130	144	1	4	5	7	\$12.47	High School None Short OJT			E	С	R	Marketing

	New Ha	yment	Avg.	tional Pro Annual Op	enings	Future	2015 Average	•	prentice	Military	License	H In	olla tere	sts	Career Cluster
Occupation, SOC Code, and Description Dental Assistants (31-9091): Assist dentist, set up equipment, prepare patient for treatment, and keep records.	1,315			Replace 32		Outlook	\$21.87	Education Experience Training Postsecondary None None		★ Mi	Z	1st	2nd R		Health Science
Dental Hygienists (29-2021): Clean teeth and examine oral areas, head, and neck for signs of oral disease. May educate patients on oral hygiene, take and develop x-rays, or apply fluoride or sealants.	1,176	1,347	17	19	36	^	\$37.64	Associate None None		*	*	S	R	С	Health Science
Dental Laboratory Technicians (51-9081): Construct and repair full or partial dentures or dental appliances.	154	175	2	4	ϵ	7	\$20.84	High School None Moderate OJT	*	*		R	I	С	Manufacturing
Dentists, All Other Specialists (29-1029): All dentists not listed separately.	n	n	n	n	r	4	n/a	Doctorate None Residency		*	*				Health Science
Dentists, General (29-1021): Examine, diagnose, and treat diseases, injuries, and malformations of teeth and gums. May treat diseases of nerve, pulp, and other dental tissues affecting oral hygiene and retention of teeth. May fit dental appliances or provide preventive care.	545	628	8	11	19	↑	\$104.71	Doctorate None None		*	*	I	R	S	Health Science
Designers, All Other (27-1029): All designers not listed separately.	71	78	1	2	3	7	\$36.82	Bachelor None None							Arts, Audio/Video Technology & Communications
Desktop Publishers (43-9031): Format typescript and graphic elements using computer software to produce publication-ready material.	68	57	0	2	2	Ψ	\$23.49	Associate None Short OJT	*	*		Α	I	С	Arts, Audio/Video Technology & Communications
Detectives and Criminal Investigators (33-3021): Conduct investigations related to suspected violations of Federal, State, or local laws to prevent or solve crimes.	324	339	2	8	10	7	\$35.83	High School < 5 years Moderate OJT		*		E	I	С	Law, Public Safety, Corrections & Security
Diagnostic Medical Sonographers (29-2032): Produce ultrasonic recordings of internal organs for use by physicians.	200	237	4	4		7	\$36.47	Associate None None		*		I	S	R	Health Science
Dietetic Technicians (29-2051): Assist in the provision of food service and nutritional programs, under the supervision of a dietitian. May plan and produce meals based on established guidelines, teach principles of food and nutrition, or counsel individuals.	122	138	2	1	3	71	\$16.40	Associate None None				s	I	R	Health Science
Dietitians and Nutritionists (29-1031): Plan and conduct food service or nutritional programs to assist in the promotion of health and control of disease. May supervise activities of a department providing quantity food services, counsel individuals, or conduct nutritional research.	245	287	4	2	6	7	\$30.93	Bachelor None Internship		*	*	I	s	E	Health Science

	Emplo	yment	Avg.	t ional Pro Annual Op	enings	Future	_	•	prentice	Military	l License	H	ollar tere:	sts	Career Cluster
Occupation, SOC Code, and Description Dining Room and Cafeteria Attendants and Bartender Helpers (35-9011): Clean tables, remove dirty dishes, replace soiled table linens; set tables; replenish supply of clean linens, silverware, glassware, and dishes; supply service bar with food; and serve water, condiments, or coffee.	1,608			Replace 80	Total 95	Outlook	\$9.00	Education Experience Training Less than HS None Short OJT	Ap	M	Ż	1st R	2nd C		Hospitality & Tourism
Directors, Religious Activities and Education (21-2021): Plan, direct, or coordinate programs designed to promote the religious education or activities of a denominational group. May provide counseling and guidance relative to marital, health, financial, and religious problems.	439	462	2	12	14	71	n/a	Bachelor < 5 years None		*		E	S	С	Human Services
Dishwashers (35-9021): Clean dishes, kitchen, food preparation equipment, or utensils.	2,184	2,160	0	94	94	7	\$9.38	Less than HS None Short OJT				R	С	Е	Hospitality & Tourism
Dispatchers, Except Police, Fire, and Ambulance (43-5032): Schedule and dispatch workers, work crews, equipment, or service vehicles for conveyance of materials, freight or passengers, or for normal installation, service, or emergency repairs rendered outside the place of business.	653	672	2	16	18	7	\$19.55	High School None Moderate OJT	*	*		С	R	E	Transportation, Distribution & Logistics
Door-to-Door Sales Workers, News and Street Vendors, and Related Workers (41-9091): Sell goods or services door-to-door or on the street.	n	n	n	n	n	•	\$10.83	Less than HS None Short OJT			*	E	С		Marketing
Drafters, All Other (17-3019): All drafters not listed separately.	191	181	0	2	2	•	\$26.31	Associate None None		*					Manufacturing
Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4032): Set up, operate, or tend drilling machines to drill, bore, ream, mill, or countersink metal or plastic work pieces.	73	61	0	1	1	•	\$17.63	High School None Moderate OJT				R	С	I	Manufacturing
Driver/Sales Workers (53-3031): Drive truck or other vehicle on established routes or within a territory and sell or deliver goods such as food products, including restaurant take-out; or pick up or deliver items such as commercial laundry. May take orders, collect payment, or stock products.	2,494	2,656	16	42	58	7	\$14.59	High School None Short OJT				R	E	С	Marketing
Drywall and Ceiling Tile Installers (47-2081): Apply plasterboard or other wallboard to ceilings or interior walls of buildings. Apply or mount acoustical tiles or blocks, strips, or sheets of shock-absorbing materials to ceilings and walls of buildings to reduce or reflect sound.	342	345	0	2	2	u	\$21.29	Less than HS None Moderate OJT	*			R	С	I	Architecture & Construction
Earth Drillers, Except Oil and Gas (47-5021): Operate a variety of drills such as rotary, churn, and pneumatic to tap sub-surface water and salt deposits, to remove core samples during mineral exploration or soil testing, and to facilitate the use of explosives in mining or construction.	121	121	0	3	3	u	\$20.81	High School None Moderate OJT	*	*	*	R	I	С	Architecture & Construction
Economics Teachers, Postsecondary (25-1063): Teach courses in economics. May primarily teach or teach and conduct research.	102	109	1	2	3	y	\$126,365	Doctorate None None				s	I		Education & Training

	Emplo	yment	Avg.	t ional Pro Annual Op	enings	Future	_	•	prentice	Military	1 License	Int	ollar	its	Career Cluster
Occupation, SOC Code, and Description Economists (19-3011): Conduct research, prepare reports, or forumulate plans to address economic issues related to production and distribution of goods and services or monetary and fiscal policy. May collect and process economic or statistical data using sampling or econometric methods.	50	2024 54	Growth 0	Replace 1	Total	Outlook	\$39.05	Education Experience Training Masters None None	Ap	Σ	艺	1st I	2nd C	F	Science, Technology, Engineering & Math
Editors (27-3041): Plan, coordinate, or edit content of material for publication. May review proposals and drafts for possible publication. Includes technical editors.	408	370	0	15	15	u	\$23.29	Bachelor < 5 years None		*		Α	E		Arts, Audio/Video Technology & Communications
Education Administrators, All Other (11-9039): All education administrators not listed separately.	135	147	1	4	5	7	\$30.19	Bachelor < 5 years None		*					Education & Training
Education Administrators, Elementary and Secondary School (11-9032): Plan, direct, or coordinate the academic, administrative, or auxiliary activities of public or private elementary or secondary level schools.	1,277	1,319	4	37	41	7	\$85,592	Masters 5+ years None			*	E	s	С	Education & Training
Education Administrators, Postsecondary (11-9033): Plan, direct, or coordinate research, instructional, student administration and services, and other educational activities at postsecondary institutions, including universities, colleges, and junior and community colleges.	737	783	5	21	26	7	\$45.83	Masters < 5 years None				E	С	S	Education & Training
Education Administrators, Preschool and Childcare Center/Program (11-9031): Plan, direct, or coordinate the academic and non-academic activities of preschool and childcare centers or programs.	342	359	2	10	12	7	\$21.35	Bachelor < 5 years None			*	E	s	С	Education & Training
Education Teachers, Postsecondary (25-1081): Teach courses pertaining to education, such as counseling, curriculum, guidance, instruction, teacher education, and teaching English as a second language. May primarily teach or teach and conduct research.	228	241	1	4	5	, A	\$70,467	Doctorate < 5 years None				S	Α	I	Education & Training
Education, Training, and Library Workers, All Other (25-9099): All education, training, and library workers not listed separately.	645	686	4	6	10	7	\$24.81	Bachelor None None							Education & Training
Educational, Guidance, School, and Vocational Counselors (21-1012): Counsel individuals and provide group educational and vocational guidance services.	1,240	1,307	7	26	33	7	\$27.40	Masters None None	*		*	S	Α	E	Education & Training
Electric Motor, Power Tool, and Related Repairers (49-2092): Repair, maintain, or install electric motors, wiring, or switches.	n	n	n	n	n	4	\$26.61	Postsecondary None Long OJT	*	*		R	С	I	Manufacturing
Electrical and Electronic Engineering Technicians (17-3023): Apply electrical and electronic theory and related knowledge, usually under the direction of engineers, to design, build, repair, calibrate, and modify electrical components, circuitry, controls, and machinery for evaluation and use.	1,078	1,078	0	26	26	7	\$26.36	Associate None None	*	*		R	I	С	Manufacturing

	Emplo	yment	Avg.	t ional Pro Annual Op	enings	Future		Entry-Level	prentice	Military	l License	Int	ollar eres	ts	Career Cluster
Occupation, SOC Code, and Description Electrical and Electronic Equipment Assemblers (51-2022): Assemble or modify electrical or electronic equipment, such as computers, test equipment telemetering systems, electric motors, and batteries.	2,051	2,045		Replace 25	Total 25	Outlook		Education Experience Training High School None Moderate OJT	★	M	Ż	1st R	2nd C		Manufacturing
Electrical and Electronics Drafters (17-3012): Prepare wiring diagrams, circuit board assembly diagrams, and layout drawings used for the manufacture, installation, or repair of electrical equipment.	154	161	1	2	3	u	\$30.66	Associate None None	*			R	С	I	Manufacturing
Electrical and Electronics Installers and Repairers, Transportation Equipment (49-2093): Install, adjust, or maintain mobile electronics communication equipment, including sound, sonar, security, navigation, and surveillance systems on trains, watercraft, or other mobile equipment.	39	40	0	1	1	2	n/a	Postsecondary None Long OJT	*	*		R	С	I	Transportation, Distribution & Logistics
Electrical and Electronics Repairers, Commercial and Industrial Equipment (49-2094): Repair, test, adjust, or install electronic equipment, such as industrial controls, transmitters, and antennas.	292	308	2	5	7	71	\$27.36	Postsecondary None Long OJT	*	*		R	I	C	Manufacturing
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay (49-2095): Inspect, test, repair, or maintain electrical equipment in generating stations, substations, and inservice relays.	45	40	0	1	1	+	\$34.93	Postsecondary None Long OJT	*	*		R	С	I	Manufacturing
Electrical Engineers (17-2071): Research, design, develop, test, or supervise the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, military, or scientific use.	1,129	1,137	1	25	26	71	\$47.19	Bachelor None None		*	*	I	R	С	Science, Technology, Engineering & Math
Electrical Power-Line Installers and Repairers (49-9051): Install or repair cables or wires used in electrical power or distribution systems. May erect poles and light or heavy duty transmission towers.	804	838	3	32	35	7	\$36.14	High school None Long OJT	*	*	*	R	I	С	Architecture & Construction
Electricians (47-2111): Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems.	2,323	2,575	25	36	61	↑	\$23.23	High School None Apprentice	*	*	*	R	I	С	Architecture & Construction
Electromechanical Equipment Assemblers (51-2023): Assemble or modify electromechanical equipment or devices, such as servomechanisms, gyros, dynamometers, magnetic drums, tape drives, brakes, control linkage, actuators, and appliances.	1,044	1,053	1	13	14	7	\$17.38	High School None Moderate OJT	*			R	С	I	Manufacturing
Electro-Mechanical Technicians (17-3024): Operate, test, maintain, or calibrate unmanned, robotic, servo-mechanical, or electromechanical equipment. May operate unmanned submarines, aircraft, or other equipment at worksites, such as oil rigs or hazardous waste removal.	158	163	0	4	4	4	\$25.39	Associate None None	*	*		R	I	С	Manufacturing
Electronic Equipment Installers and Repairers, Motor Vehicles (49-2096): Install, diagnose, or repair communications, sound, security, or navigation equipment in motor vehicles.	44	24	0	1	1	•	\$17.16	Postsecondary None Short OJT	*	*		R	I	С	Transportation, Distribution & Logistics

	New Ha			t ional Pro j Annual Op		Future	2015 Average	Entry-Level	rentice	Military	License	H In	olla: tere		Career Cluster
Occupation, SOC Code, and Description	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	Арр	Mil	Ĭ	1st	2nd	3rd	
Electronic Home Entertainment Equipment Installers and Repairers (49-2097): Repair, adjust, or install audio or television receivers, stereo systems, camcorders, video systems, or other electronic home entertainment equipment.	188	202	1	3	4	7	\$22.86	Postsecondary None Short OJT		*		R	С		Manufacturing
Electronics Engineers, Except Computer (17-2072): Research, design, develop, or test electronic components and systems for commercial, industrial, military, or scientific use, employing knowledge of electronic theory and materials properties. Design electronic circuits and components.	505	507	0	11	11	7	\$46.47	Bachelor None None		*	*	I	R	Α	Science, Technology, Engineering & Math
Elementary School Teachers, Except Special Education (25-2021): Teach students basic academic, social, and other formative skills in public or private schools at the elementary level.	6,049	6,245	20	134	154	71	\$55,646	Bachelor None Internship			*	s	Α	С	Education & Training
Elevator Installers and Repairers (47-4021): Assemble, install, repair, or maintain electric or hydraulic freight or passenger elevators, escalators, or dumbwaiters.	n	n	n	n	n	y .	n/a	High School None Apprentice	*	*	*	R	I	С	Architecture & Construction
Eligibility Interviewers, Government Programs (43-4061): Determine eligibility of persons applying to receive assistance from government programs and agency resources, such as welfare, unemployment benefits, social security, and public housing.	423	445	2	5	7	7	\$19.12	High School None Moderate OJT	*			S	С	E	Government & Public Adminstration
Embalmers (39-4011): Prepare bodies for interment in conformity with legal requirements.	n	n	n	n	n	•	n/a	Postsecondary None Short OJT	*	*	*	R	С	I	Human Services
Emergency Management Directors (11-9161): Plan and direct disaster response or crisis management activities, provide disaster preparedness training, and prepare emergency plans and procedures for natural, wartime, or technological disasters or hostage situations.	73	79	1	1	2	7	\$30.63	Bachelor 5+ years None	*	*		s	E		Government & Public Adminstration
Emergency Medical Technicians and Paramedics (29-2041): Assess injuries, administer emergency medical care, and extricate trapped individuals. Transport injured or sick persons to medical facilities.	980	1,205	22	16	38	↑	\$17.65	Postsecondary None None	*	*	*	s	I	R	Law, Public Safety, Corrections & Security
Engine and Other Machine Assemblers (51-2031): Construct, assemble, or rebuild machines such as engines, turbines, and similar equipment used in such industries as construction, extraction, textiles, and paper manufacturing.	164	166	0	3	3	u	\$21.85	High School None Moderate OJT	*			R	С	I	Manufacturing
Engineering Teachers, Postsecondary (25-1032): Teach courses pertaining to the application of physical laws and principles of engineering for the development of machines, materials, instruments, processes, and services. May primarily teach or teach and conduct research.	n	n	n	n	n	7	\$116,398	Doctorate None None		*		S	I	R	Education & Training
Engineering Technicians, Except Drafters, All Other (17-3029): All engineering technicians, except drafters, not listed separately. Includes Engineering Technicians specializing in Manufacturing Production, Nanotechnology, Fuel Cells, or Photonics; and Non-Destructive Testing Specialists.	559	569	1	14	15	7	\$24.40	Associate None None	*	*					Manufacturing

	New Ha	yment	Avg.	tional Pro	enings	Future	2015 Average	Entry-Level	prentice	Military	License	Int	ollar ere:	sts	Career Cluster
Occupation, SOC Code, and Description Engineers, All Other (17-2199): All engineers not listed separately. Includes Biochemical, Validation, Energy, Manufacturing, Mechatronics, Microsystems, Photonics, Robotics, Nanosystems, Wind Energy, and Solar Energy Systems Engineers.	1,047	1,096		Replace 21		Outlook	\$42.64	Education Experience Training Bachelor None None	Apı		★	1st	2nd		Science, Technology, Engineering & Math
English Language and Literature Teachers, Postsecondary (25-1123): Teach courses in English language and literature, including linguistics and comparative literature. May primarily teach or teach and conduct research.	304	322	2	5	7	71	\$78,490	Doctorate None None		*		S	Α	I	Education & Training
Entertainers and Performers, Sports and Related Workers, All Other (27-2099): All entertainers and performers, sports and related workers not listed separately.	139	145	1	4	5	, u	\$13.42	Less than HS None Short OJT							Arts, Audio/Video Technology & Communications
Entertainment Attendants and Related Workers, All Other (39-3099): All entertainment attendants and related workers not listed separately.	107	130	2	4	6	7	n/a	High School None Short OJT							Hospitality & Tourism
Environmental Engineering Technicians (17-3025): Apply theory and principles of environmental engineering to modify, test, and operate equipment and devices used in the prevention, control, and remediation of environmental pollution, including waste treatment and site remediation.	n	n	n	n	n	4	n/a	Associate None None				R	I	(Agriculture, Food & Natural Resources
Environmental Engineers (17-2081): Research, design, plan, or perform engineering duties in the prevention, control, and remediation of environmental hazards using various engineering disciplines. Work may include waste treatment, site remediation, or pollution control technology.	164	201	4	5	9	7	\$41.41	Bachelor None None		*	*	I	R	С	Agriculture, Food & Natural Resources
Environmental Science and Protection Technicians, Including Health (19-4091): Perform laboratory and field tests to monitor the environment and investigate sources of pollution, including those affecting health, under the direction of an environmental scientist, engineer, or other specialist.	237	265	3	10	13	^	\$20.22	Associate None None	*			I	R	С	Agriculture, Food & Natural Resources
Environmental Science Teachers, Postsecondary (25-1053): Teach courses in environmental science. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.	105	110	0	2	2	4	\$80,477	Doctorate None None				S	I	Α	Education & Training
Environmental Scientists and Specialists, Including Health (19-2041): Conduct research or investigations to identify, abate, or eliminate pollutant or hazard sources that affect the environment or population health. Use knowledge of scientific disciplines to study, report, and recommend action.	444	528	8	14	22	1	\$35.05	Bachelor None None	*	*		I	R	С	Science, Technology, Engineering & Math
Epidemiologists (19-1041): Investigate and describe the determinants and distribution of disease, disability, and other health outcomes, and develop the means for prevention and control.	n	n	n	n	n	4	n/a	Masters None None				I	S	R	Health Science
Etchers and Engravers (51-9194): Engrave or etch metal, wood, rubber, or other materials. Includes such workers as etcher-circuit processors, pantograph engravers, and silk screen etchers.	30	31	0	1	1	u	\$13.64	High School None Moderate OJT	*			R	С	Α	Manufacturing

	New Ha	yment	Avg.	tional Proj Annual Op	enings	Future	2015 Average	Entry-Level	prentice	Military	License	Int	llan	ts	Career Cluster
Occupation, SOC Code, and Description Excavating and Loading Machine and Dragline Operators (53-7032): Operate or tend machinery equipped with scoops, shovels, or buckets to excavate and load loose materials.	2014 454	2024 475		Replace 5	Total 7	Outlook		Education Experience Training High School < 5 years Moderate OJT	★ Ap	Mi		1st I	2nd E		Architecture & Construction
Executive Secretaries and Executive Administrative Assistants (43-6011): Provide high-level administrative support. Conduct research, prepare statistical reports, handle information requests, prepare correspondence, receive visitors, arrange conference calls, and schedule meetings.	1,610	1,523	0	17	17	u	\$26.54	High School < 5 years None		*		С	E	` \	Business Management & Administration
Exercise Physiologists (29-1128): Assess, plan, or implement fitness programs that include exercise or physical activities such as those designed to improve cardiorespiratory function, body composition, muscular strength, muscular endurance, or flexibility.	112	120	1	1	2	71	\$22.20	Bachelor None None				S	I	R	Health Science
Explosives Workers, Ordnance Handling Experts, and Blasters (47-5031): Place and detonate explosives to demolish structures or to loosen, remove, or displace earth, rock, or other materials. May perform specialized handling, storage, and accounting procedures.	n	n	n	n	n	4	\$28.52	High School < 5 Years Long OJT	*	*	*	R	I	С	Architecture & Construction
Extraction Workers, All Other (47-5099): All extraction workers not listed separately.	n	n	n	n	n	n	n/a	High School None Moderate OJT							Architecture & Construction
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic (51-4021): Set up, operate, or tend machines to extrude or draw thermoplastic or metal materials into tubes, rods, hoses, wire, bars, or structural shapes.	620	498	0	15	15	n	\$16.82	High School None Moderate OJT	*			R	С		Manufacturing
Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers (51-6091): Set up, operate, or tend machines that extrude and form continuous filaments from synthetic materials such as liquid polymer, rayon, and fiberglass.	n	n	n	n	n	•	\$17.31	High School None Moderate OJT				R	С		Manufacturing
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders (51-9041): Set up, operate, or tend machines such as glass forming, plodder, or tuber machines to shape and form products, such as glassware, food, rubber, soap, brick, tile, clay, wax, tobacco, or cosmetics.	387	343	0	14	14	y .	\$15.34	High School None Moderate OJT	*			R	С	I	Manufacturing
Fabric and Apparel Patternmakers (51-6092): Draw and construct sets of precision master fabric patterns or layouts. May also mark and cut fabrics and apparel.	n	n	n	n	n	4	n/a	High School None Moderate OJT	*			R	Α	С	Manufacturing
Fallers (45-4021): Use axes or chainsaws to fell trees using knowledge of tree characteristics and cutting techniques to control direction of fall and minimize tree damage.	n	n	n	n	n	•	n/a	High School None Moderate OJT	*			R	С		Agriculture, Food & Natural Resources
Family and General Practitioners (29-1062): Physicians who diagnose, treat, and help prevent diseases and injuries that commonly occur in the general population. May refer patients to specialists when needed for further diagnosis or treatment.	622	684	6	17	23	↑	\$102.90	Doctorate None Residency		*	*	I	s	R	Health Science

Occupation, SOC Code, and Description	New Ha Emplo 2014	yment	Avg.	tional Pro Annual Or Replace	enings	Future Outlook	_	Entry-Level Education Experience Training	Apprentice	Military	VH License	Holl Inter	ests	Career Cluster
Farm Equipment Mechanics and Service Technicians (49-3041): Diagnose, adjust, repair, or overhaul farm machinery and vehicles such as tractors, harvesters, dairy equipment, and irrigation systems.	79	84	0	2	2	7		High school None Long OJT	*	2			: I	Agriculture Food &
Farmers, Ranchers, and Other Agricultural Managers (11-9013): Plan, direct, or coordinate the management or operation of farms, ranches, greenhouses, aquacultural operations, nurseries, timber tracts, or other agricultural establishments.	3,955	4,030	8	67	75	7	n/a	High School 5+ years None	*			E F	2 C	Agriculture, Food & Natural Resources
Farmworkers and Laborers, Crop, Nursery, and Greenhouse (45-2092): Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives.	684	700	2	18	20	7	\$13.15	Less than HS None Short OJT				R C	2	Agriculture, Food & Natural Resources
Farmworkers, Farm, Ranch, and Aquacultural Animals (45-2093): Attend to live farm, ranch, or aquacultural animals that may include cattle, sheep, swine, goats, horses and other equines, poultry, finfish, shellfish, and bees.	459	485	3	12	15	7	\$12.80	Less than HS None Short OJT	*			R C		Agriculture, Food & Natural Resources
Fashion Designers (27-1022): Design clothing and accessories. Create original designs or adapt fashion trends.	107	118	1	2	3	7	n/a	Bachelor None None	*		,	A E	E R	Arts, Audio/Video Technology & Communications
Fence Erectors (47-4031): Erect and repair fences and fence gates, using hand and power tools.	n	n	n	n	n	n	n/a	Less than HS None Moderate OJT	*			R C	2	Architecture & Construction
Fiberglass Laminators and Fabricators (51-2091): Laminate layers of fiberglass on molds to form boat decks and hulls, bodies for golf carts, automobiles, or other products.	n	n	n	n	n	u	\$14.79	High School None Moderate OJT	*			R C	: I	Manufacturing
File Clerks (43-4071): File correspondence, cards, invoices, receipts, and other records in alphabetical or numerical order or according to the filing system used. Locate and remove material from file when requested.	530	496	0	11	11	4	\$12.21	High School None Short OJT			,	C F	R E	Business Management & Administration
Film and Video Editors (27-4032): Edit moving images on film, video, or other media. May edit or synchronize soundtracks with images.	27	34	1	0	1	7	n/a	Bachelor None None	*	*	,	A E	I	Arts, Audio/Video Technology & Communications
Financial Analysts (13-2051): Conduct quantitative analyses of information affecting investment programs of public or private institutions.	n	n	n	n	n	1	\$33.35	Bachelor None None				C 1	E	Finance
Financial Clerks, All Other (43-3099): All financial clerks not listed separately.	414	457	4	11	15	↑	\$17.28	High School None Short OJT						Finance

	Emplo	yment	Avg.	t ional Pro j Annual Op	enings	Future	_	•	prentice	Military	l License	Int	ollan eres	ts	Career Cluster
Occupation, SOC Code, and Description Financial Examiners (13-2061): Enforce or ensure compliance with laws and regulations governing financial and securities institutions and financial and real estate transactions. May examine, verify, or authenticate records.	2014 n	2024 n	Growth n	Replace n	Total n	Outlook		Education Experience Training Bachelor None Moderate OJT	Ap	Ψ	칟	1st E	2nd C		Government & Public Adminstration
Financial Managers (11-3031): Plan, direct, or coordinate accounting, investing, banking, insurance, securities, and other financial activities of a branch, office, or department of an establishment.	3,648	3,994	35	86	121	^	\$56.45	Bachelor 5+ years None		*		E	С		Finance
Financial Specialists, All Other (13-2099): All financial specialists not listed separately.	1,113	1,234	12	11	23	^	\$34.94	Bachelor None Moderate OJT		*					Finance
Fine Artists, Including Painters, Sculptors, and Illustrators (27-1013): Create original artwork using any of a wide variety of media and techniques.	n	n	n	n	n	Ä	n/a	Bachelor None Long OJT	*	*		Α	R		Arts, Audio/Video Technology & Communications
Fire Inspectors and Investigators (33-2021): Inspect buildings to detect fire hazards and enforce local ordinances and State laws, or investigate and gather facts to determine cause of fires and explosions.	59	62	0	2	2	, a	\$25.94	Postsecondary 5+ years Moderate OJT	*			R	С	I	Law, Public Safety, Corrections & Security
Firefighters (33-2011): Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster assistance.	1,504	1,594	9	44	53	7	\$20.29	Postsecondary None Long OJT	*	*	*	R	s		Law, Public Safety, Corrections & Security
First-Line Supervisors of Construction and Extraction Workers (47-1011): Directly supervise and coordinate activities of construction or extraction workers.	2,467	2,620	15	20	35	7	\$29.33	High School 5+ years None		*		E	R	С	Architecture & Construction
First-Line Supervisors of Correctional Officers (33-1011): Directly supervise and coordinate activities of correctional officers and jailers.	112	116	0	3	3	· u	\$28.32	High School < 5 years Moderate OJT		*		E	С	R	Law, Public Safety, Corrections & Security
First-Line Supervisors of Farming, Fishing, and Forestry Workers (45-1011): Directly supervise and coordinate the activities of agricultural, forestry, aquacultural, and related workers.	106	103	0	3	3	•	\$24.78	High School < 5 years None	*			E	R		Agriculture, Food & Natural Resources
First-Line Supervisors of Fire Fighting and Prevention Workers (33-1021): Directly supervise and coordinate activities of workers engaged in fire fighting and fire prevention and control.	493	522	3	23	26	7	\$30.99	Postsecondary < 5 years Moderate OJT	*	*		E	R		Law, Public Safety, Corrections & Security
First-Line Supervisors of Food Preparation and Serving Workers (35-1012): Directly supervise and coordinate activities of workers engaged in preparing and serving food.	3,266	3,622	36	97	133	↑	\$17.51	High School < 5 years None		*		Е	С	R	Hospitality & Tourism

	New Ha			t ional Pro j Annual Op		Future	2015 Average	Entry-Level	rentice	Military	License	Holl Inter		
Occupation, SOC Code, and Description	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	App	Ξ	돌 1	st 2r	ıd 3r	d
First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand (53-1021): Directly supervise and coordinate the activities of helpers, laborers, or material movers.	465	486	2	15	17	7	\$21.85	High School < 5 years None				E F	2 0	Transportation, Distribution & Logistics
First-Line Supervisors of Housekeeping and Janitorial Workers (37-1011): Directly supervise and coordinate work activities of cleaning personnel in hotels, hospitals, offices, and other establishments.	1,046	1,127	8	16	24	^	\$19.26	High School < 5 years None	*	*	ı	E	: F	Hospitality & Tourism
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (37-1012): Directly supervise and coordinate activities of workers engaged in landscaping or groundskeeping activities. May review contracts, answer inquiries from potential customers, and prepare cost estimates.	988	1,061	7	16	23	↑	\$22.18	High School < 5 years None				E F	2 0	Architecture & Construction
First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011): Directly supervise and coordinate the activities of mechanics, installers, and repairers. Excludes team or work leaders.	2,026	2,109	8	40	48	7	\$33.69	High School < 5 years None		*		E C	: F	R Manufacturing
First-Line Supervisors of Non-Retail Sales Workers (41-1012): Directly supervise and coordinate activities of sales workers other than retail sales workers. May perform duties such as budgeting, accounting, and personnel work, in addition to supervisory duties.	2,415	2,566	15	28	43	7	\$50.58	High School < 5 years None			ı	E C	: 5	6 Marketing
First-Line Supervisors of Office and Administrative Support Workers (43-1011): Directly supervise and coordinate the activities of clerical and administrative support workers.	6,905	7,532	63	104	167	↑	\$26.28	High School < 5 years None		*	ı	E C	: !	Business Management & Administration
First-Line Supervisors of Personal Service Workers (39-1021): Directly supervise and coordinate activities of personal service workers, such as flight attendants, hairdressers, or caddies.	1,013	1,131	12	19	31	↑	\$17.53	High School < 5 years None		*	ı	E C	: 5	6 Human Services
First-Line Supervisors of Police and Detectives (33-1012): Directly supervise and coordinate activities of members of police force.	488	515	3	17	20	7	\$37.32	High School < 5 years Moderate OJT		*	ı	E S	5 0	Law, Public Safety, Corrections & Security
First-Line Supervisors of Production and Operating Workers (51-1011): Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators.	2,792	2,816	2	44	46	7	\$29.80	High School < 5 years None		*	ı	E F	2 0	Manufacturing
First-Line Supervisors of Protective Service Workers, All Other (33-1099): All protective service supervisors not listed separately above.	259	280	2	7	9	71	\$29.75	High School < 5 years None		*				Law, Public Safety, Corrections & Security
First-Line Supervisors of Retail Sales Workers (41-1011): Directly supervise and coordinate activities of retail sales workers in an establishment or department. Duties may include management functions such as purchasing, budgeting, accounting, and personnel work, in addition to supervision.	9,184	9,565	38	205	243	7	\$22.70	High School < 5 years None	*	*	ı	E C	: s	6 Marketing

	New Ha			tional Pro Annual Op		Future	2015 Average	Entry-Level	prentice	Military	License	Inte		ts	Career Cluster
Occupation, SOC Code, and Description First-Line Supervisors of Transportation and Material-Moving Machine or	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	App	Mil	Ĭ.	1st 2	2nd	3rd	
Vehicle Operators (53-1031): Directly supervise and coordinate activities of transportation and material-moving machine or vehicle operators and helpers.	691	721	3	22	. 25	7	\$28.08	High School < 5 years None		*		E	С	ĸ	Transportation, Distribution & Logistics
Fish and Game Wardens (33-3031): Patrol assigned area to prevent fish and game law violations. Investigate reports of damage to crops or property by wildlife. Compile biological data.	42	45	0	1	1	7	n/a	Bachelor None Moderate OJT	*		*	R	I	` '	Law, Public Safety, Corrections & Security
Fishers and Related Fishing Workers (45-3011): Use nets, fishing rods, traps, or other equipment to catch and gather fish or other aquatic animals from rivers, lakes, or oceans for human consumption or other uses. May haul game onto ship.	n	n	n	n	n	4	n/a	Less than HS None Moderate OJT				R	E		Agriculture, Food & Natural Resources
Fitness Trainers and Aerobics Instructors (39-9031): Instruct or coach groups or individuals in exercise activities. Demonstrate techniques and form, observe participants, and explain to them corrective measures necessary to improve their skills.	1,959	2,176	22	36	58	1	\$17.20	High School None Short OJT		*		S	R	E	Human Services
Flight Attendants (53-2031): Provide personal services to ensure the safety, security, and comfort of airline passengers during flight. Greet passengers, verify tickets, explain use of safety equipment, and serve food or beverages.	n	n	n	n	n	4	n/a	High School < 5 years Moderate OJT		*		E	S	(Transportation, Distribution & Logistics
Floor Layers, Except Carpet, Wood, and Hard Tiles (47-2042): Apply blocks, strips, or sheets of shock-absorbing, sound-deadening, or decorative coverings to floors.	28	31	0	0	0	u	n/a	Less than HS None Moderate OJT	*			R	С	I	Architecture & Construction
Floor Sanders and Finishers (47-2043): Scrape and sand wooden floors to smooth surfaces using floor scraper and floor sanding machine, and apply coats of finish.	52	53	0	1	1	u	n/a	Less than HS None Moderate OJT				R	С		Architecture & Construction
Floral Designers (27-1023): Design, cut, and arrange live, dried, or artificial flowers and foliage.	246	236	0	6	6	u	\$12.72	High School None Moderate OJT	*			Α	E	R	Arts, Audio/Video Technology & Communications
Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders (51-3091): Operate or tend food or tobacco roasting, baking, or drying equipment, including hearth ovens, kiln driers, roasters, char kilns, and vacuum drying equipment.	40	44	0	1	1	7	n/a	Less than HS None Moderate OJT				R	С		Manufacturing
Food Batchmakers (51-3092): Set up and operate equipment that mixes or blends ingredients used in the manufacturing of food products. Includes candy makers and cheese makers.	349	382	3	8	11	1	\$12.83	High School None Moderate OJT	*			R	С	I	Manufacturing
Food Cooking Machine Operators and Tenders (51-3093): Operate or tend cooking equipment, such as steam cooking vats, deep fry cookers, pressure cookers, kettles, and boilers to prepare food products.	37	37	0	1	1	u	\$15.26	High School None Moderate OJT				R	С	I	Manufacturing

Occupation, SOC Code, and Description	New Ha Emplo 2014	yment	Avg.	i onal Pro Annual Op Replace	enings	Future Outlook	_	Entry-Level Education Experience Training	Apprentice	Military	IH License	Holla Interest 2n	ests	Career Cluster
Food Preparation and Serving Related Workers, All Other (35-9099): All food preparation and serving related workers not listed separately.	164	176		8	9	71	\$9.81	Less than HS None Short OJT	1					Hospitality & Tourism
Food Preparation Workers (35-2021): Perform a variety of food preparation duties other than cooking, such as preparing cold foods and shellfish, slicing meat, and brewing coffee or tea.	2,969	3,180	21	83	104	1	\$10.77	Less than HS None Short OJT		*	F	R C		Hospitality & Tourism
Food Processing Workers, All Other (51-3099): All food processing workers not listed separately.	194	237	4	4	8	71	\$12.61	Less than HS None Moderate OJT						Manufacturing
Food Scientists and Technologists (19-1012): Use chemistry, microbiology, engineering, and other sciences to study food processing and deterioration; analyze food to determine vitamins, fat, sugar, and protein; discover new food sources; and find ways to package, preserve, store, or distribute food.	n	n	n	n	n	Z)	n/a	Bachelor None None		*	1	I R	С	Agriculture, Food & Natural Resources
Food Servers, Nonrestaurant (35-3041): Serve food to individuals outside of a restaurant environment, such as in hotel rooms, hospital rooms, residential care facilities, or cars.	1,103	1,296	19	27	46	^	\$10.42	Less than HS None Short OJT				S E	R	Hospitality & Tourism
Food Service Managers (11-9051): Plan, direct, or coordinate activities of an organization or department that serves food and beverages. Excludes <i>Chefs and Head Cooks</i> (35-1011).	1,559	1,658	10	31	41	7	\$26.23	High School < 5 years None	*	*	ı	EC	R	Hospitality & Tourism
Foreign Language and Literature Teachers, Postsecondary (25-1124): Teach languages and literature courses in languages other than English. Includes teachers of American Sign Language (ASL). May primarily teach or teach and conduct research.	n	n	n	n	n	Ä	n/a	Doctorate None None		*	Š	5 A	I	Education & Training
Forensic Science Technicians (19-4092): Collect, identify, classify, and analyze physical evidence related to criminal investigations. Perform tests on weapons or substances such as fiber, hair, and tissue. May testify as expert witness on evidence or crime lab techniques.	39	49	1	2	3	7	\$32.90	Bachelor None Moderate OJT	*		1	I R	С	Law, Public Safety, Corrections & Security
Forest and Conservation Technicians (19-4093): Provide technical assistance regarding the conservation of soil, water, forests, or natural resources. May compile data on the characteristics of forest tracts, or train and lead forest workers in forest propagation and fire prevention and suppression.	67	65	0	3	3	4	\$18.35	Associate None None			i	R I	E	Agriculture, Food & Natural Resources
Forest and Conservation Workers (45-4011): Under supervision, perform manual labor to develop, maintain, or protect forests, woodlands, wetlands, and rangelands. Raise and transport seedlings; combat insects, pests, and diseases; and build structures to control water, erosion, or leaching of soil.	n	n	n	n	n	2	n/a	High School None Moderate OJT			ı	R C	I	Agriculture, Food & Natural Resources
Forest Fire Inspectors and Prevention Specialists (33-2022): Enforce fire regulations, inspect forest for fire hazards, and recommend forest fire prevention or control measures. May report forest fires and weather conditions.	184	213	3	5	8	7	n/a	Postsecondary < 5 years Moderate OJT			ı	R C	E	Law, Public Safety, Corrections & Security

	New Ha		Avg.	Annual O	penings	Future	_	•	prentice	Military	License	H In	ollar tere:	sts	Career Cluster
Occupation, SOC Code, and Description Foresters (19-1032): Manage public and private forest lands for economic, recreational, and conservation purposes. May inventory type, amount, and location of standing timber, and appraise worth. May determine how to conserve wildlife habitats, creek beds, water quality, and soil stability.	79	95		Replace	Total	Outlook		Education Experience Training Bachelor None None	Ap		<u>₹</u>	1st R	2nd I		Agriculture, Food & Natural Resources
Forging Machine Setters, Operators, and Tenders, Metal and Plastic (51-4022): Set up, operate, or tend forging machines to taper, shape, or form metal or plastic parts.	27	23	0	-	L 1	Ψ	\$17.00	High School None Moderate OJT	*			R	С	I	Manufacturing
Foundry Mold and Coremakers (51-4071): Make or form wax or sand cores or molds used in the production of metal castings in foundries.	237	177	0	2	1 4	• •	\$15.46	High School None Moderate OJT	*			R	С	I	Manufacturing
Fundraisers (13-1131): Organize activities to raise funds or otherwise solicit and gather monetary donations or other gifts for an organization. May design and produce promotional materials. May also raise awareness of the organization's work, goals, and financial needs.	379	415	4	5	5 9	7	\$25.17	Bachelor None None				E	С	Α	Business Management & Administration
Funeral Attendants (39-4021): Perform a variety of tasks during funeral, such as placing casket in parlor or chapel prior to service; arranging floral offerings or lights around casket; directing or escorting mourners; closing casket; and issuing and storing funeral equipment.	80	79	0	2	2 2	Ψ	\$17.53	High School None Short OJT		*		S	E	R	Human Services
Funeral Service Managers (11-9061): Plan, direct, or coordinate the services or resources of funeral homes. Includes activities such as determining prices for services or merchandise, and managing the facilities of funeral homes.	n	n	n	r	n r	Ä	n/a	Associate < 5 years None	*	*		E	С	S	Human Services
Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders (51-9051): Operate or tend heating equipment other than basic metal, plastic, or food processing equipment. Includes activities, such as annealing glass, drying lumber, curing rubber, removing moisture from materials, or boiling soap.	28	27	0	2	L 1	•	\$19.19	High School None Moderate OJT	*			R	С	I	Manufacturing
Furniture Finishers (51-7021): Shape, finish, and refinish damaged, worn, or used furniture or new high-grade furniture to specified color or finish.	33	35	0	-	L 1	, A	n/a	High School None Short OJT	*			R	Α	С	Manufacturing
Gaming Cage Workers (43-3041): Conduct financial transactions for gaming establishment patrons. May reconcile daily transactions to balance books; accept patron's credit application and verify credit references to establish house accounts; or sell gambling chips, tokens, or tickets to patrons.	n	n	n	r	n r	u	n/a	High School None Short OJT			*	С	E	R	Hospitality & Tourism
Gaming Dealers (39-3011): Operate table games. Stand or sit behind table and operate games of chance by dispensing the appropriate number of cards or blocks to players, or operating other gaming equipment. Distribute winnings or collect players' money or chips.	203	221	2	į	5 7	7	n/a	High School None Short OJT				С	E	R	Hospitality & Tourism
Gaming Managers (11-9071): Plan, direct, or coordinate gaming operations in a casino. May formulate house rules.	n	n	n	r	n r	, u	n/a	High School < 5 years None				E	С	R	Hospitality & Tourism

Occupation, SOC Code, and Description		yment	Avg.	i onal Pro Annual Op Replace	enings	Future Outlook	_	Entry-Level Education Experience Training	Apprentice	Military	MH License	Ho Int	ollar tere: 2nd	sts	Career Cluster
Gaming Supervisors (39-1011): Supervise and coordinate activities of workers in assigned areas. Circulate among tables and observe operations. Ensure that stations and games are covered for each shift. May explain and interpret operating rules of house to patrons.	48	52		2	2	7	n/a	High School < 5 years None	9	V	*	E	С		Hospitality & Tourism
Gas Compressor and Gas Pumping Station Operators (53-7071): Operate steam, gas, electric motor, or internal combustion engine driven compressors. Transmit, compress, or recover gases, such as butane, nitrogen, hydrogen, and natural gas.	n	n	n	n	n	•	n/a	High school None Moderate OJT				R	С		Transportation, Distribution & Logistics
Gas Plant Operators (51-8092): Distribute or process gas for utility companies and others by controlling compressors to maintain specified pressures on main pipelines.	n	n	n	n	n	+	\$32.60	High school None Long OJT				R	С	I	Manufacturing
General and Operations Managers (11-1021): Plan, direct, or coordinate the operations of public or private sector organizations. Formulate policies, manage operations, and plan use of materials and human resources, but duties are too diverse to be classified in any one functional area.	8,837	9,552	72	224	296	7	\$59.96	Bachelor 5+ years None		*		E	С		Business Management & Administration
Genetic Counselors (29-9092): Assess individual or family risk for a variety of inherited conditions, such as genetic disorders and birth defects. Provide information to other healthcare providers or to individuals and families concerned with the risk of inherited conditions.	n	n	n	n	n	n	n/a	Masters None None			*	S	I	Α	Health Science
Geography Teachers, Postsecondary (25-1064): Teach courses in geography. May primarily teach or teach and conduct research.	n	n	n	n	n	•	n/a	Doctorate None None		*		S	I	Α	Education & Training
Geological and Petroleum Technicians (19-4041): Assist scientists or engineers in the use of electronic, sonic, or nuclear measuring instruments in both laboratory and production activities to obtain data indicating potential resources such as metallic ore, minerals, gas, coal, or petroleum.	25	28	0	1	1	7	\$19.64	Associate None Moderate OJT	*	*		R	I	С	Agriculture, Food & Natural Resources
Geoscientists, Except Hydrologists and Geographers (19-2042): Study the composition, structure, and other physical aspects of the Earth. May use geological, physics, and math knowledge to explore for oil, gas, minerals, or water; or study the earth's internal composition, atmospheres, and oceans.	75	83	1	2	3	7	\$41.47	Bachelor None None		*	*	I	R	С	Science, Technology, Engineering & Math
Glaziers (47-2121): Install glass in windows, skylights, store fronts, and display cases, or on surfaces such as building fronts, interior walls, ceilings, and tabletops.	89	91	0	1	1	u	\$16.01	High School None Apprentice	*			R	С	E	Architecture & Construction
Graders and Sorters, Agricultural Products (45-2041): Grade, sort, or classify unprocessed food and other agricultural products by size, weight, color, or condition.	26	26	0	0	С	4	n/a	Less than HS None Short OJT				R	С	I	Agriculture, Food & Natural Resources
Graphic Designers (27-1024): Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.	1,061	1,078	2	25	27	7	\$21.86	Bachelor None None	*	*		Α	R	E	Arts, Audio/Video Technology & Communications

	New Ha			tional Pro Annual Op		Future	2015 Average	Entry-Level	orentice	Military	License		ollar eres		Career Cluster
Occupation, SOC Code, and Description Grinding and Polishing Workers, Hand (51-9022): Grind, sand, or polish - using hand tools or hand-held power tools - a variety of metal, wood, stone, clay, plastic, or glass objects. Includes chippers, buffers, and finishers.	180			Replace 4	Total 4	Outlook	\$16.40	Education Experience Training Less than HS None Moderate OJT	App	Mil	IZ	1st R	2nd C		Manufacturing
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4033): Set up, operate, or tend grinding and related tools that remove excess material or burrs from surfaces, sharpen edges or corners, or buff, hone, or polish metal or plastic pieces.	512	425	0	21	21	u	\$18.07	High School None Moderate OJT	*			R	С		Manufacturing
Grounds Maintenance Workers, All Other (37-3019): All grounds maintenance workers not listed separately.	383	445	6	7	13	^	\$13.63	Less than HS None Short OJT							Architecture & Construction
Hairdressers, Hairstylists, and Cosmetologists (39-5012): Provide beauty services such as shampooing, cutting, coloring, and styling hair, and massaging and treating scalp. May apply makeup, dress wigs, perform hair removal, and provide nail and skin care services.	3,520	3,864	34	91	125	1	\$13.76	Postsecondary None None	*		*	Α	E	S	Human Services
Hazardous Materials Removal Workers (47-4041): Identify, remove, pack, transport, or dispose of hazardous materials such as asbestos, lead paint, waste oil, fuel, radioactive materials, or contaminated soil. Training and certification in hazardous materials handling are usually required.	232	284	5	5	10	7	\$20.17	High School None Moderate OJT		*	*	R	С		Agriculture, Food & Natural Resources
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111): Promote worksite or product safety by applying knowledge of industrial processes, mechanics, chemistry, psychology, and industrial health and safety laws. Includes industrial product safety engineers.	56	57	0	2	2	, A	\$45.20	Bachelor None None		*	*	I	R	С	Science, Technology, Engineering & Math
Health Diagnosing and Treating Practitioners, All Other (29-1199): All health diagnosing and treating practitioners not listed separately. Includes Acupuncturists; Naturopathic Physicians; and Orthoptists.	234	271	4	5	9	7	\$30.69	Masters None None			*				Health Science
Health Educators (21-1091): Provide and manage health education programs that help individuals, families, and communities maintain healthy lifestyles. Collect and analyze data to identify needs. Serve as resource to assist individuals, other professionals, or the community.	166	188	2	3	5	7	\$23.45	Bachelor None None	*			S	E	Α	Human Services
Health Specialties Teachers, Postsecondary (25-1071): Teach courses in health specialties, in fields such as dentistry, laboratory technology, medicine, pharmacy, public health, therapy, and veterinary medicine.	536	620	8	10	18	^	\$121,235	Doctorate < 5 years None				S	I		Education & Training
Health Technologists and Technicians, All Other (29-2099): All health technologists and technicians not listed separately. Includes Neurodiagnostic Technologists; Ophthalmic Medical Technologists; Radiologic Technicians; and Surgical Assistants.	497	592	10	5	15	1	\$24.12	High School None None	*	*					Health Science
Healthcare Practitioners and Technical Workers, All Other (29-9099): All healthcare practitioners and technical workers not listed separately. Includes Midwives.	613	692	8	12	20	↑	\$31.16	Postsecondary None None		*	*				Health Science

		mpshire (t ional Pro Annual Op		Future	2015 Average	Entry-Level	orentice	Military	License	Ho Int	ollar eres		Career Cluster
Occupation, SOC Code, and Description	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	Арк	Mil	王	1st	2nd	3rd	
Healthcare Social Workers (21-1022): Provide individuals, families, and groups with the psychosocial support needed to cope with chronic, acute, or terminal illnesses. Advise family caregivers, provide patient education and counseling, and make referrals for other services.	552	659	11	13	24	↑	\$26.98	Masters None None				S	I	Α	Human Services
Healthcare Support Workers, All Other (31-9099): All healthcare support workers not listed separately. Includes Speech-Language Pathology Assistants, and Endoscopy Technicians.	468	527	6	10	16	↑	\$16.04	High School None None		*					Health Science
Hearing Aid Specialists (29-2092): Select and fit hearing aids for customers. Administer and interpret tests of hearing. Assess hearing instrument efficacy. Take ear impressions and prepare, design, and modify ear molds.	n	n	n	n	n	n	n/a	High School None None	*		*	S	I	R	Health Science
Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic (51-4191): Set up, operate, or tend equipment such as heat-treating furnaces, flame-hardening machines, induction machines, soaking pits, or vacuum equipment to temper, harden, anneal, or heat-treat metal or plastic objects.	92	79	0	2	2	4	\$18.38	High School None Moderate OJT	*	*		R	С		Manufacturing
Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021): Install or repair heating, central air conditioning, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.	1,394	1,416	2	21	23	7	\$25.00	Postsecondary None Long OJT	*	*	*	R	С	I	Architecture & Construction
Helpers, Construction Trades, All Other (47-3019): All construction trades helpers not listed separately.	50	57	1	1	2	7	\$10.07	Less than HS None Short OJT		*					Architecture & Construction
HelpersBrickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters (47-3011): Help brickmasons, blockmasons, or stonemasons, or tile and marble setters by performing duties requiring less skill. May use, supply, or	127	150	2	2	4	7	\$17.09	Less than HS None Short OJT	*			R	С		Architecture & Construction
HelpersCarpenters (47-3012): Help carpenters by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment.	104	109	0	1	1	y .	\$13.75	Less than HS None Short OJT				R	С	E	Architecture & Construction
HelpersElectricians (47-3013): Help electricians by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment.	84	95	1	1	2	7	\$13.05	High School None Short OJT				R	С	I	Architecture & Construction
HelpersExtraction Workers (47-5081): Help extraction craft workers, such as earth drillers, blasters and explosives workers, derrick operators, and mining machine operators by performing duties requiring less skill. Duties include supplying equipment or cleaning work area.	63	63	0	1	1	u	\$17.95	High School None Moderate OJT	*			R	С	- 1 1	Architecture & Construction
HelpersInstallation, Maintenance, and Repair Workers (49-9098): Help installation, maintenance, and repair workers maintain and repair vehicles, machinery, and equipment. May furnish or hold tools, materials, and supplies, or clean work area, machines, and tools.	532	564	3	17	20	7	\$12.68	High School None Short OJT	*			R	С	- 1 1	Architecture & Construction

	Emplo	yment	Avg.	t ional Pro Annual Op	enings	Future	_	Entry-Level	prentice	Military	1 License	H	ollar tere	sts	Career Cluster
Occupation, SOC Code, and Description HelpersPainters, Paperhangers, Plasterers, and Stucco Masons (47-3014): Help painters, paperhangers, plasterers, or stucco masons by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment.	2014 n			Replace n	Total	Outlook	Wage n/a	Education Experience Training Less than HS None Short OJT	Ap	Mi	N	1st R	2nd C	3rd E	Architecture & Construction
HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters (47-3015): Help plumbers, pipefitters, steamfitters, or pipelayers by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment.	77	81	0	1	1	7	\$15.12	High School None Short OJT				R	С		Architecture & Construction
HelpersProduction Workers (51-9198): Help production workers by performing duties requiring less skill. Duties include supplying or holding materials or tools, and cleaning work area and equipment.	1,756	1,891	14	57	71	^	\$12.02	Less than HS None Short OJT		*		R	С	I	Manufacturing
HelpersRoofers (47-3016): Help roofers by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment.	n	n	n	n	n	7	n/a	Less than HS None Short OJT				R	С		Architecture & Construction
Highway Maintenance Workers (47-4051): Maintain highways, municipal and rural roads, airport runways, and rights-of-way. Patch broken or eroded pavement, and repair guard rails, highway markers, and snow fences. May mow or clear brush from along road or plow snow from roadway.	1,831	1,936	10	49	59	7	\$17.13	High School None Moderate OJT				R	С	I	Architecture & Construction
Historians (19-3093): Research, analyze, record, and interpret the past as recorded in sources such as newspapers and other periodicals, government and institutional records, photographs, interviews, films, electronic media, and unpublished manuscripts, such as personal diaries and letters.	n	n	n	n	n	y .	n/a	Masters None None	*	*		I	С		Science, Technology, Engineering & Math
History Teachers, Postsecondary (25-1125): Teach courses in human history and historiography. May primarily teach or teach and conduct research.	109	116	1	2	3	n	\$85,322	Doctorate None None		*		s	I	Α	Education & Training
Hoist and Winch Operators (53-7041): Operate or tend hoists or winches to lift and pull loads using power-operated cable equipment.	n	n	n	n	n	u	n/a	Less than HS None Short OJT				R	С	E	Architecture & Construction
Home Appliance Repairers (49-9031): Repair, adjust, or install all types of electric or gas household appliances, such as refrigerators, washers, dryers, and ovens.	114	120	1	3	4	y .	\$19.35	High School None Moderate OJT	*		*	R	С	I	Manufacturing
Home Economics Teachers, Postsecondary (25-1192): Teach courses in childcare, family relations, finance, nutrition, and related subjects pertaining to home management. May primarily teach or teach and conduct research.	n	n	n	n	n	•	n/a	Masters None None				s	I	Α	Education & Training
Home Health Aides (31-1011): Provide routine individual healthcare at the patient's home or in a care facility, such as changing bandages and dressing wounds, and applying topical medications. Monitor changes in health status. May provide personal care such as bathing, dressing, and grooming.	1,669	2,254	58	38	96	↑	\$12.82	Less than HS None Short OJT	*			S	R	С	Health Science

			1	ional Proj			2015		ntice	Military	sense		ollan		
Occupation, SOC Code, and Description	Emplo 2014	•	_	Annual Op Replace		Future Outlook	Average Wage	Entry-Level Education Experience Training	ppre	/ilita	IH Li	Int 1st	eres 2nd		Career Cluster
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop (35-9031): Welcome patrons, seat them at tables or in lounge, and help ensure quality of facilities and service.	2,318			164		_	\$9.68	Less than HS None None	A	2	2	E	S	314	Hospitality & Tourism
Hotel, Motel, and Resort Desk Clerks (43-4081): Accommodate hotel, motel, and resort patrons. Register and assign rooms, issue room keys or cards, keep records of occupied rooms and guest accounts, make and confirm reservations, and present statements and collect payments.	1,224	1,342	12	63	75	↑	\$11.17	High School None Short OJT	*	*		С	E	S	Hospitality & Tourism
Human Resources Assistants, Except Payroll and Timekeeping (43-4161): Compile and keep personnel records. Record data for employees, such as address, weekly earnings, absences, amount of sales or production, supervisory reports, and date of and reason for termination.	546	531	0	6	6	2	\$17.95	Associate None None	*	*		С	E	s	Business Management & Administration
Human Resources Managers (11-3121): Plan, direct, or coordinate human resources activities and staff of an organization.	513	566	5	15	20	↑	\$52.99	Bachelor 5+ years None		*		E	S	(Business Management & Administration
Human Resources Specialists (13-1071): Perform activities in the human resource area. Includes employment specialists who screen, recruit, interview, and place workers.	1,925	2,076	15	47	62	↑	\$28.78	Bachelor None None	*	*		E	С	S	Business Management & Administration
Hydrologists (19-2043): Research the distribution, circulation, and physical properties of underground and surface waters; and study the form and intensity of precipitation, its rate of infiltration into the soil, movement through the earth, and its return to the ocean and atmosphere.	58	63	0	2	2	7	\$39.17	Bachelor None None		*		I	R		Science, Technology, Engineering & Math
Industrial Engineering Technicians (17-3026): Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineers. May perform time and motion studies on operations to establish production rates or improve efficiency.	419	425	1	10	11	7	\$25.27	Associate None None	*			I	R	С	Manufacturing
Industrial Engineers (17-2112): Design, develop, test, and evaluate integrated systems for managing industrial production processes, including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination.	1,245	1,301	6	36	42	7	\$39.02	Bachelor None None	*	*	*	I	E		Science, Technology, Engineering & Math
Industrial Machinery Mechanics (49-9041): Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems.	2,168	2,591	42	56	98	^	\$26.19	High school None Long OJT	*	*		R	I	С	Manufacturing
Industrial Production Managers (11-3051): Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.	823	821	0	23	23	u	\$55.26	Bachelor 5+ years None	*	*		E	С	S	Business Management & Administration
Industrial Truck and Tractor Operators (53-7051): Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location. Excludes <i>Logging Equipment Operators</i> (45-4022).	1,468	1,511	4	36	40	7	\$17.58	Less than HS None Short OJT		*		R	С		Transportation, Distribution & Logistics

	Emplo	yment	Avg.	tional Pro	enings	Future		•	oprentice	Military	H License		llan	ts	Career Cluster
Occupation, SOC Code, and Description Information and Record Clerks, All Other (43-4199): All information and record clerks not listed separately.	1,076	1,173		Replace 28	Total 38	Outlook		Education Experience Training High School None Short OJT	A	*	Z	ıst	zna		Business Management & Administration
Information Security Analysts (15-1122): Perform a variety of computer network activities, such as implement or monitor security measures; design, create, and modify web sites; or design and implement computer and data communication networks.	223	278	6	3	9	7	\$46.89	Bachelor < 5 years None		*		С	I	R	Information Technology
Inspectors, Testers, Sorters, Samplers, and Weighers (51-9061): Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products for defects, wear, and deviations from specifications. May use precision measuring instruments.	3,297	3,422	12	83	95	7	\$19.83	High School None Moderate OJT	*	*		С	R	I	Manufacturing
Installation, Maintenance, and Repair Workers, All Other (49-9099): All installation, maintenance, and repair workers not listed separately. Includes Geothermal Technicians.	803	872	7	12	19	↑	\$20.20	High School None Moderate OJT	*	*	*				Manufacturing
Instructional Coordinators (25-9031): Develop instructional material, coordinate educational content, and incorporate current technology in specialized fields that provide guidelines to educators and instructors for developing curricula and conducting courses.	581	622	4	6	10	7	\$32.67	Masters 5+ years None		*	*	S	I	E	Education & Training
Insulation Workers, Floor, Ceiling, and Wall (47-2131): Line and cover structures with insulating materials. May work with batt, roll, or blown insulation materials.	187	190	0	6	6	u	\$17.67	Less than HS None Short OJT	*			R	С		Architecture & Construction
Insurance Appraisers, Auto Damage (13-1032): Appraise automobile or other vehicle damage to determine repair costs for insurance claim settlement. Prepare insurance forms to indicate repair cost or cost estimates and recommendations. May seek agreement with repair shop on repair costs.	49	48	0	1	1	•	\$29.86	Postsecondary None Moderate OJT				С	R	E	Finance
Insurance Claims and Policy Processing Clerks (43-9041): Process claims forms, new insurance policies, and modifications to existing policies. Obtain information to verify accuracy and completeness of information on forms, applications, and company records. Update policies with changes.	1,251	1,307	6	31	37	7	\$19.73	High School None Moderate OJT	*			С	E	S	Finance
Insurance Sales Agents (41-3021): Sell life, property, casualty, health, automotive, or other types of insurance. May refer clients to independent brokers, work as an independent broker, or be employed by an insurance company.	2,544	2,756	21	67	88	↑	\$29.92	High School None Moderate OJT			*	E	С	S	Finance
Insurance Underwriters (13-2053): Review individual applications for insurance to evaluate degree of risk involved and determine acceptance of applications.	287	249	0	5	5	4	\$38.97	Bachelor None Moderate OJT				С	E	I	Finance
Interior Designers (27-1025): Plan, design, and furnish interiors of residential, commercial, or industrial buildings. Formulate design which is practical, aesthetic, and conducive to intended purposes, such as raising productivity, selling merchandise, or improving life style.	214	224	1	5	6	7	\$23.33	Bachelor None None	*			A	E		Architecture & Construction

	Emplo	yment	Avg. A	ional Proj Annual Op	enings	Future	_	•	prentice	Military	4 License	Ho	ollar	its	Career Cluster
Occupation, SOC Code, and Description Internists, General (29-1063): Physicians who diagnose and provide non- surgical treatment of diseases and injuries of internal organ systems. Provide care mainly for adults who have a wide range of problems associated with the internal organs.	137	144	Growth 1	Replace 4	Total 5	Outlook		Education Experience Training Doctorate None Residency	Αβ			1st I	2nd S		Health Science
Interpreters and Translators (27-3091): Interpret oral or sign language, or translate written text from one language into another.	258	330	7	4	11	↑	\$22.30	Bachelor None Short OJT		*	*	Α	S	С	Education & Training
Interviewers, Except Eligibility and Loan (43-4111): Interview persons by telephone, mail, in person, or by other means for the purpose of completing forms, applications, or questionnaires. Ask specific questions, record answers, and assist persons completing form. Sort, classify, and file forms.	1,215	1,278	6	28	34	7	\$15.89	High School None Short OJT				С	E	\	Business Management & Administration
Janitors and Cleaners, Except Maids and Housekeeping Cleaners (37-2011): Keep buildings in clean and orderly condition. Perform heavy cleaning duties such as cleaning floors, shampooing rugs, washing walls and glass, and removing rubbish. May tend furnace or boiler.	9,997	10,628	63	199	262	7	\$13.27	Less than HS None Short OJT	*			R	С	E	Hospitality & Tourism
Jewelers and Precious Stone and Metal Workers (51-9071): Design, fabricate, adjust, repair, or appraise jewelry, gold, silver, other precious metals, or gems. Includes diamond polishers and gem cutters, casting metal in molds, or setting precious and semi-precious stones.	111	95	0	2	2	•	\$18.02	High school None Long OJT	*			R	Α	С	Manufacturing
Judges, Magistrate Judges, and Magistrates (23-1023): Arbitrate, advise, adjudicate, or administer justice in a court of law. May sentence defendant in criminal cases according to government statutes or sentencing guidelines. May determine liability of defendant in civil cases.	87	88	0	1	1	7	n/a	Doctorate 5+ years Short OJT		*		E	S	С	Law, Public Safety, Corrections & Security
Kindergarten Teachers, Except Special Education (25-2012): Teach elemental natural and social science, personal hygiene, music, art, and literature to kindergarten students. Promote physical, mental, and social development. May be required to hold State certification.	551	573	2	16	18	7	\$49,526	Bachelor None Internship			*	s	Α	E	Education & Training
Labor Relations Specialists (13-1075): Resolve disputes between workers and managers, negotiate collective bargaining agreements, or coordinate grievance procedures to handle employee complaints.	127	117	0	3	3	•	\$33.59	Bachelor < 5 years None				E	С	` `	Business Management & Administration
Laborers and Freight, Stock, and Material Movers, Hand (53-7062): Manually move freight, stock, or other materials or perform other general labor. Includes all manual laborers not elsewhere classified.	6,626	7,109	48	197	245	↑	\$12.86	Less than HS None Short OJT				R	С		Transportation, Distribution & Logistics
Landscape Architects (17-1012): Plan and design land areas for projects such as parks and other recreational facilities, airports, highways, hospitals, schools, land subdivisions, and commercial, industrial, and residential sites.	30	32	0	0	0	y .	n/a	Bachelor None Internship			*	Α	I	R	Architecture & Construction
Landscaping and Groundskeeping Workers (37-3011): Landscape or maintain grounds using hand or power tools or equipment. Perform varied tasks such as sod laying, mowing, trimming, planting, watering, fertilizing, raking, digging, or installing sprinklers or segmental concrete masonry wall units.	6,893	7,459	57	124	181	↑	\$14.31	Less than HS None Short OJT	*			R	С		Architecture & Construction

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Occupation, SOC Code, and Description	Emplo 2014		_	Annual O _l Replace		Future Outlook		Entry-Level Education Experience Training	Appre	∕lilita	VH Lic	1st	eres 2nd		Career Cluster
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4034): Set up, operate, or tend lathe and turning machines to turn, bore, thread, form, or face metal or plastic materials such as wire, rod, or bar stock.	201	173		5	5 5	Ψ		High School None Moderate OJT	*	2	_	R			Manufacturing
Laundry and Dry-Cleaning Workers (51-6011): Operate or tend washing or dry-cleaning machines to wash or dry-clean industrial or household articles such as cloth garments, suede, leather, furs, blankets, draperies, linens, rugs, and carpets. Includes spotters and dyers of these articles.	824	838	1	12	2 13	71	\$11.00	Less than HS None Short OJT	*	*		R	С	E	Human Services
Law Teachers, Postsecondary (25-1112): Teach courses in law. May primarily teach or teach and conduct research.	n	n	n	n	ı r	y .	n/a	Doctorate None None				S	I	E	Education & Training
Lawyers (23-1011): Represent clients in criminal and civil litigation and other legal proceedings, draw up legal documents, or manage or advise clients on legal transactions. May specialize in a single area or may practice broadly in many areas of law.	2,008	2,074	7	29	36	7	\$55.03	Doctorate None None		*	*	E	I	Α	Law, Public Safety, Corrections & Security
Lay-Out Workers, Metal and Plastic (51-4192): Lay out reference points and dimensions on metal or plastic stock or workpieces, such as sheets, plates, tubes, structural shapes, castings, or machine parts, for further processing. Includes shipfitters.	n	n	n	n	ı r	4	n/a	High School None Moderate OJT	*	*		R	С	I	Manufacturing
Legal Secretaries (43-6012): Perform secretarial duties using legal terminology, procedures, and documents. Prepare legal papers and correspondence such as summonses, complaints, motions, and subpoenas. May also assist with legal research.	875	799	0	g) <u>c</u>	u	\$20.20	High School None Moderate OJT	*	*		С	E		Law, Public Safety, Corrections & Security
Legal Support Workers, All Other (23-2099): All legal support workers not listed separately.	122	127	0	3	3	· u	\$28.54	High School None Short OJT							Law, Public Safety, Corrections & Security
Legislators (11-1031): Develop, introduce, or enact laws and statutes at the local, tribal, State, or Federal level. Includes only workers in elected positions.	313	311	0	7	, 7	, A	\$20,439	Bachelor < 5 years None				E	S		Government & Public Adminstration
Librarians (25-4021): Administer libraries and perform related services in a variety of settings. Tasks may include selecting, acquiring, cataloguing, classifying, circulating, and maintaining library materials and furnishing reference, bibliographical, and readers' advisory services.	1,014	1,019	0	19) 19	7	\$26.47	Masters None None			*	С	S	E	Education & Training
Library Assistants, Clerical (43-4121): Compile records, sort, shelve, issue, and receive materials such as books, electronic media, pictures, cards, slides and microfilm. Locate materials for loan and replace in shelving, stacks, or file. Register patrons to permit them to borrow library materials.	881	916	4	27	7 31	7	\$12.52	High School None Short OJT				С	R	`	Business Management & Administration
Library Technicians (25-4031): Assist librarians by helping readers use library catalogs, databases, and indexes to locate books and other materials. Sort and shelve books or media; remove or repair damaged books or media; register patrons; and check materials in and out of circulation.	650	683	3	31	1 34	7	\$16.90	Postsecondary None None				С	S	E	Education & Training

Occupation, SOC Code, and Description	New Ha Emplo 2014	yment	Avg.	i onal Pro Annual Op Replace	enings	Future Outlook	_	Entry-Level Education Experience Training	Apprentice	Military	NH License	Holla Inter	ests	
Licensed Practical and Licensed Vocational Nurses (29-2061): Care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, or group homes. May work under the supervision of a registered nurse. Licensing required.	2,091	2,454		60	96	1	\$22.98	Postsecondary None None		*		S R		Health Science
Life Scientists, All Other (19-1099): All life scientists not listed separately.	23	25	0	1	1	71	n/a	Bachelor None None		*				Science, Technology, Engineering & Math
Life, Physical, and Social Science Technicians, All Other (19-4099): All life, physical, and social science technicians not listed separately. Includes Quality Control Analysts; Precision Agriculture Technicians; and Remote Sensing Technicians.	184	199	2	8	10	71	\$23.71	Associate None None	*	*				Science, Technology, Engineering & Math
Lifeguards, Ski Patrol, and Other Recreational Protective Service (33-9092): Monitor recreational areas, such as pools, beaches, or ski slopes to provide assistance and protection to participants.	522	557	4	7	11	7	\$10.71	Less than HS None Short OJT		*		R S	E	Law, Public Safety, Corrections & Security
Loan Interviewers and Clerks (43-4131): Interview loan applicants to elicit information; investigate applicants' backgrounds and verify references; prepare loan request papers; and forward findings, reports, and documents to appraisers. Review loan papers, and complete transactions on approval.	775	860	8	12	20	^	\$17.46	High School None Short OJT			,	C E	s	Finance
Loan Officers (13-2072): Evaluate, authorize, or recommend approval of commercial, real estate, or credit loans. Advise borrowers on financial status and payment methods. Includes mortgage loan officers and agents, collection analysts, loan servicing officers, and loan underwriters.	1,161	1,284	12	19	31	^	\$43.21	Bachelor None Moderate OJT				C E	s	Finance
Locker Room, Coatroom, and Dressing Room Attendants (39-3093): Provide personal items to patrons or customers in locker rooms, dressing rooms, or coatrooms.	49	52	0	2	2	7	\$9.69	High School None Short OJT			:	S E	С	Human Services
Locksmiths and Safe Repairers (49-9094): Repair and open locks; make keys; change locks and safe combinations; and install and repair safes.	105	101	0	5	5	•	\$24.46	High school None Long OJT	*	*	ı	R	Е	Manufacturing
Locomotive Engineers (53-4011): Drive electric, diesel-electric, steam, or gasturbine-electric locomotives to transport passengers or freight. Interpret train orders, electronic or manual signals, and railroad rules and regulations.	23	23	0	1	1	y .	n/a	High School < 5 years Moderate OJT	*	*		R C		Transportation, Distribution & Logistics
Lodging Managers (11-9081): Plan, direct, or coordinate activities of an organization or department that provides lodging and other accommodations.	388	420	3	7	10	7	\$30.08	High School < 5 years None	*	*		E C	s	Hospitality & Tourism
Log Graders and Scalers (45-4023): Grade logs or estimate the marketable content or value of logs or pulpwood in sorting yards, millpond, log deck, or similar locations. Inspect logs for defects or measure logs to determine volume.	n	n	n	n	n	y .	\$16.06	High School None Moderate OJT			ı	R C	Е	Agriculture, Food & Natural Resources

	New Ha Emplo			t ional Pro j Annual Op		Future	2015 Average	Entry-Level	rentice	Military	License	Ho Inte	llan		Career Cluster
Occupation, SOC Code, and Description	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	Арр	Mili	돌 2	1st 2	2nd	3rd	
Logging Equipment Operators (45-4022): Drive logging tractor or wheeled vehicle equipped with accessories such as bulldozer blade, frontal shear, grapple, logging arch, cable winches, hoisting rack, or crane boom, to fell tree; skid, load, unload, or stack logs; pull stumps; or clear brush.	291	290	0	7	7	2	\$17.02	High School None Moderate OJT				R	С		Agriculture, Food & Natural Resources
Logisticians (13-1081): Analyze and coordinate the logistical functions of a firm or organization. Responsible for the entire life cycle of a product, including acquisition, distribution, internal allocation, delivery, and final disposal of resources.	392	406	1	5	6	7	\$34.32	Bachelor None None		*		E	С	\	Transportation, Distribution & Logistics
Machine Feeders and Offbearers (53-7063): Feed materials into or remove materials from machines or equipment that is automatic or tended by other workers.	540	548	1	12	13	71	\$18.08	Less than HS None Short OJT				R	С		Manufacturing
Machinists (51-4041): Set up and operate a variety of machine tools to produce precision parts and instruments. May fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines.	2,357	2,700	34	68	102	↑	\$21.40	High school None Long OJT	*	*		R	С	I	Manufacturing
Magnetic Resonance Imaging Technologists (29-2035): Operate Magnetic Resonance Imaging (MRI) scanners. Monitor patient safety and comfort, and view images of area being scanned to ensure quality of pictures. May administer gadolinium contrast dosage intravenously.	111	111	0	2	2	y .	\$33.89	Associate < 5 years None		*		R	С	S	Health Science
Maids and Housekeeping Cleaners (37-2012): Perform light cleaning duties to maintain private households or commercial establishments, such as hotels and hospitals, in a clean and orderly manner. May make beds, replenish linens, clean rooms and halls, and vacuum.	5,891	6,502	61	140	201	↑	\$10.52	Less than HS None Short OJT	*			R	С	S	Hospitality & Tourism
Mail Clerks and Mail Machine Operators, Except Postal Service (43-9051): Prepare incoming and outgoing mail for distribution. Use hand or mail machines to time stamp, open, read, sort, and route incoming mail; and address, seal, stamp, fold, stuff, and affix postage to outgoing mail.	451	379	0	9	9	y .	\$13.81	High School None Short OJT	*	*		С	R		Business Management & Administration
Maintenance and Repair Workers, General (49-9071): Perform work using skills of two or more maintenance or craft occupations to keep machines, mechanical equipment or structures in repair, such as pipe fitting, welding, insulating, carpentry, or repairing electrical equipment, floors, or stairs.	4,623	4,996	37	121	158	↑	\$19.51	High school None Long OJT	*	*		R	С	I	Manufacturing
Maintenance Workers, Machinery (49-9043): Lubricate machinery, change parts, or perform other routine machinery maintenance.	208	230	2	3	5	7	\$19.35	High School None Moderate OJT	*	*		R	С	I	Manufacturing
Management Analysts (13-1111): Conduct organizational studies and evaluations, design systems and procedures, conduct work simplification and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively.	2,378	2,810	43	33	76	↑	\$46.56	Bachelor < 5 years None	*	*		I	E	(1	Business Management & Administration
Managers, All Other (11-9199): All managers not listed separately.	9,632	10,152	52	212	264	7	\$55.18	Bachelor < 5 years None		*					Business Management & Administration

Occupation, SOC Code, and Description	New Ha Emplo 2014	yment	Avg.	i onal Pro Annual Op Replace	enings	Future Outlook	_	Entry-Level Education Experience Training	Apprentice	Military	VH License	H In	ollar tere:	sts	Career Cluster
Manicurists and Pedicurists (39-5092): Clean and shape customers' fingernails and toenails. May polish or decorate nails.	631	696	6	5	11	^	\$12.39	Postsecondary None None	1	_	*	R	E	s	Human Services
Manufactured Building and Mobile Home Installers (49-9095): Move or install mobile homes or prefabricated buildings.	52	36	0	1	1	4	\$19.38	High School < 5 years Short OJT			*	R	С	E	Architecture & Construction
Market Research Analysts and Marketing Specialists (13-1161): Research market conditions, or gather information to determine potential sales of a product or service, or create a marketing campaign. May gather information on competitors, prices, sales, and methods of marketing and distribution.	1,813	2,146	33	22	55	1	\$33.05	Bachelor None None				I	E	С	Marketing
Marketing Managers (11-2021): Plan, direct, or coordinate marketing policies and programs. Determine demand for products and services offered by a firm and its competitors, and identify potential customers. Develop pricing strategies, oversee product development, or monitor trends.	1,150	1,251	10	27	37	^	\$60.74	Bachelor 5+ years None				E	С	Α	Marketing
Marriage and Family Therapists (21-1013): Diagnose and treat mental and emotional disorders, whether cognitive, affective, or behavioral, within the context of marriage and family systems. Apply psychotherapeutic and family systems theories and techniques in the delivery of services.	250	285	4	5	g	7	\$27.68	Masters None Internship			*	s	Α	I	Human Services
Massage Therapists (31-9011): Perform therapeutic massages of soft tissues and joints. May assist in the assessment of range of motion and muscle strength, or propose client therapy plans.	1,852	2,124	27	14	41	↑	\$19.66	Postsecondary None None			*	s	R	I	Human Services
Material Moving Workers, All Other (53-7199): All material moving workers not listed separately.	n	n	n	n	n	7	\$12.00	Less than HS None Short OJT		*					Transportation, Distribution & Logistics
Materials Engineers (17-2131): Evaluate materials and develop machinery and processes to manufacture materials for use in products that must meet specialized design and performance specifications. Develop new uses for known materials.	123	122	0	4	4	4	\$43.64	Bachelor None None	*	*	*	I	R	E	Science, Technology, Engineering & Math
Materials Scientists (19-2032): Research and study structures and chemical properties of natural and synthetic or composite materials such as metals, alloys, rubber, ceramics, semiconductors, polymers, and glass. Determine ways to strengthen or combine materials or develop new materials.	33	32	0	1	1	4	\$45.69	Bachelor None None				I	R	E	Science, Technology, Engineering & Math
Mathematical Science Occupations, All Other (15-2099): All mathematical scientists not listed separately.	n	n	n	n	n	4	n/a	Bachelor None None							Science, Technology, Engineering & Math
Mathematical Science Teachers, Postsecondary (25-1022): Teach courses on mathematical concepts, statistics, and actuarial science and application of original and standardized mathematical techniques in solving problems and situations. May primarily teach or teach and conduct research.	144	161	2	2	4	7	\$88,952	Doctorate None None		*		s	I	Α	Education & Training

	New Ha			t ional Pro Annual Op	•	Future	2015 Average	Entry-Level	orentice	Military	License	Int	ollar tere:	sts	Career Cluster
Occupation, SOC Code, and Description Mathematical Technicians (15-2091): Apply standardized mathematical formulas, principles, and methodology to technological problems in engineering and physical sciences in relation to specific industrial and research objectives, processes, equipment, and products.	2014 n	2024 n	Growth n	Replace n	Total	Outlook	Wage n/a	Education Experience Training Bachelor None None	App	*	HZ	1st I	2nd R		Science, Technology, Engineering & Math
Mathematicians (15-2021): Conduct research in fundamental mathematics or in application of mathematical techniques to science, management, and other fields. Solve problems in various fields using mathematical methods.	n	n	n	n	r	•	n/a	Masters None None				I	С	Α	Science, Technology, Engineering & Math
Meat, Poultry, and Fish Cutters and Trimmers (51-3022): Use hand or hand tools to perform routine cutting and trimming of meat, poultry, and seafood.	49	52	0	1	. 1	u u	\$11.63	Less than HS None Short OJT				R	С		Manufacturing
Mechanical Door Repairers (49-9011): Install, service, or repair automatic door mechanisms and hydraulic doors. Includes garage door mechanics.	65	70	0	3	3	7	\$20.78	High School None Moderate OJT	*			R	С		Architecture & Construction
Mechanical Drafters (17-3013): Prepare detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information.	287	269	0	3	3	•	\$28.96	Associate None None	*			R	С	I	Manufacturing
Mechanical Engineering Technicians (17-3027): Apply theory and principles of mechanical engineering to modify, develop, test, or calibrate machinery and equipment under direction of engineering staff or physical scientists.	375	406	3	9	12	^	\$25.22	Associate None None	*	*		R	I	С	Manufacturing
Mechanical Engineers (17-2141): Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of equipment such as centralized heat, gas, water, and steam systems.	1,678	1,794	12	53	65	7	\$42.19	Bachelor None None	*	*	*	I	R	С	Science, Technology, Engineering & Math
Media and Communication Equipment Workers, All Other (27-4099): All media and communication equipment workers not listed separately.	141	133	0	3	3	Ψ	\$20.27	High School None Short OJT		*					Arts, Audio/Video Technology & Communications
Media and Communication Workers, All Other (27-3099): All media and communication workers not listed separately.	106	115	1	2	3	7	n/a	High School None Short OJT							Arts, Audio/Video Technology & Communications
Medical and Clinical Laboratory Technicians (29-2012): Perform routine medical laboratory tests for the diagnosis, treatment, and prevention of disease. May work under the supervision of a medical technologist.	480	524	4	12	16	^	\$19.74	Associate None None	*	*	*	R	I	С	Health Science
Medical and Clinical Laboratory Technologists (29-2011): Perform complex medical laboratory tests for diagnosis, treatment, and prevention of disease. May train or supervise staff.	658	699	4	16	20	7	\$31.34	Bachelor None None		*	*	I	R	С	Health Science

			i i	ional Pro			2015		ntice	Military	ense		llan		
Occupation, SOC Code, and Description	Emplo 2014		_	Annual Op Replace		Future Outlook	Average Wage	Entry-Level Education Experience Training	Appre	∕lilitaı	A Lic	Int 1st	eres 2nd		Career Cluster
Medical and Health Services Managers (11-9111): Plan, direct, or coordinate medical and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.	1,620			41				Bachelor < 5 years None		*		E	С		Health Science
Medical Appliance Technicians (51-9082): Construct, fit, maintain, or repair medical supportive devices such as braces, orthotics and prosthetic devices, joints, arch supports, and other surgical and medical appliances.	n	n	n	n	n	•	\$20.76	High school None Long OJT	*	*		R	I	S	Manufacturing
Medical Assistants (31-9092): Perform administrative and clinical duties as directed by a physician. Duties may include scheduling appointments, maintaining medical records, billing, coding for insurance, taking vital signs and medical histories, preparing patients for exam, or drawing blood.	2,129	2,542	41	44	85	↑	\$16.14	Postsecondary None None	*	*		S	С	R	Health Science
Medical Equipment Preparers (31-9093): Prepare, sterilize, install, or clean laboratory or healthcare equipment. May perform routine laboratory tasks and operate or inspect equipment.	226	241	2	5	7	7	\$16.21	High School None Moderate OJT	*	*		R	С	I	Health Science
Medical Equipment Repairers (49-9062): Test, adjust, or repair biomedical or electromedical equipment.	147	158	1	3	4	7	\$26.23	Associate None Moderate OJT	*	*		R	I	С	Manufacturing
Medical Records and Health Information Technicians (29-2071): Compile, process, and maintain medical records of hospital and clinic patients according to medical, administrative, ethical, legal, and regulatory requirements of the health care system.	888	1,012	12	20	32	^	\$18.76	Postsecondary None None	*	*		С	E		Health Science
Medical Scientists, Except Epidemiologists (19-1042): Conduct research dealing with the understanding of human diseases and the improvement of human health. Engage in clinical investigation, research and development, or other related activities.	418	443	2	13	15	7	\$30.91	Doctorate None None		*		I	R	Α	Health Science
Medical Secretaries (43-6013): Perform secretarial duties using specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. May schedule appointments, bill patients, and compile and record medical charts, reports, and correspondence.	2,441	2,901	46	26	72	^	\$17.21	High School None Moderate OJT	*			С	S		Health Science
Medical Transcriptionists (31-9094): Transcribe medical reports recorded by physicians and other practitioners, covering office visits, emergency room visits, diagnostic imaging studies, operations, chart reviews, and final summaries. Transcribe dictated reports and translate abbreviations.	315	307	0	7	7	y .	\$18.32	Postsecondary None None	*			С	R	I	Health Science
Meeting, Convention, and Event Planners (13-1121): Coordinate activities of staff, convention personnel, or clients to make arrangements for group meetings, events, or conventions.	399	437	4	5	g	71	\$23.98	Bachelor None None				E	С	S	Business Management & Administration
Mental Health and Substance Abuse Social Workers (21-1023): Assess and treat individuals with mental, emotional, or substance abuse problems, including alcohol, tobacco, and/or other drugs. Provide therapy, crisis intervention, case management, client advocacy, prevention, or education.	305	377	7	7	14	↑	\$28.04	Bachelor None None		*	*	s	I	Α	Human Services

	New Ha Emplo			tional Pro Annual Op		Future	2015 Average	Entry-Level	orentice	Military	License	Hol Inte			Career Cluster
Occupation, SOC Code, and Description Mental Health Counselors (21-1014): Counsel with emphasis on prevention. Work with individuals and groups to promote optimum mental and emotional health. May help individuals deal with addiction and substance abuse; family, parenting, or marital problems; stress management; or aging.	619	758		Replace 13		Outlook		Education Experience Training Masters None Internship	App			1st 2 S			Human Services
Merchandise Displayers and Window Trimmers (27-1026): Plan and erect commercial displays, such as those in windows and interiors of retail stores and at trade exhibitions.	942	965	2	22	24	7	\$13.28	High School None Moderate OJT	*			A	E	R	Marketing
Metal Workers and Plastic Workers, All Other (51-4199): All metal workers and plastic workers not listed separately.	1,071	864	0	19	19	y .	\$16.03	High School None Moderate OJT	*			R	I	С	Manufacturing
Metal-Refining Furnace Operators and Tenders (51-4051): Operate or tend furnaces, such as gas, oil, coal, electric-arc or electric induction, open-hearth, or oxygen furnaces, to melt and refine metal before casting or to produce specified types of steel.	36	36	0	1	1	u	\$18.15	High School None Moderate OJT	*			R	I	С	Manufacturing
Meter Readers, Utilities (43-5041): Read meter and record consumption of electricity, gas, water, or steam.	71	58	0	1	1	+	\$24.87	High School None Short OJT				С	R		Business Management & Administration
Microbiologists (19-1022): Investigate the growth, structure, development, and other characteristics of microscopic organisms such as bacteria, algae, or fungi. Includes medical microbiologists who study the relationship between organisms and disease or how antibiotics effect microorganisms.	26	26	0	1	1	y .	n/a	Bachelor None None		*		I	R	(Science, Technology, Engineering & Math
Middle School Teachers, Except Special and Career/Technical Education (25-2022): Teach students in one or more subjects in public or private schools at the middle, intermediate, or junior high level, which falls between elementary and senior high school.	3,491	3,605	11	77	88	7	\$57,732	Bachelor None Internship			*	S .	A		Education & Training
Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic (51-4035): Set up, operate, or tend milling or planing machines to mill, plane, shape, groove, or profile metal or plastic work pieces.	136	111	0	2	2	4	\$20.38	High School None Moderate OJT	*			R	С		Manufacturing
Millwrights (49-9044): Install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings.	110	122	1	2	3	71	\$26.56	High School None Apprentice	*			R	с	I	Architecture & Construction
Mining and Geological Engineers, Including Mine Safety Engineers (17-2151): Conduct sub-surface surveys to identify characteristics of potential land or mining development sites. May inspect for unsafe conditions or specify equipment for safe, economical, and environmentally sound extraction.	n	n	n	n	n	2	n/a	Bachelor None None	*		*	I	R	- 1	Science, Technology, Engineering & Math
Mixing and Blending Machine Setters, Operators, and Tenders (51-9023): Set up, operate, or tend machines to mix or blend materials such as chemicals, tobacco, liquids, color pigments, or explosive ingredients.	260	255	0	6	6	u	\$18.70	High School None Moderate OJT	*			R	с	I	Manufacturing

		yment	Avg.	t ional Pro Annual Op	enings	Future	2015 Average	•	prentice	Military	License	Int	ollar eres	sts	Career Cluster
Occupation, SOC Code, and Description Mobile Heavy Equipment Mechanics, Except Engines (49-3042): Diagnose, adjust, repair, or overhaul mobile mechanical, hydraulic, and pneumatic equipment, such as cranes, bulldozers, graders, and conveyors, used in construction, logging, and surface mining.	2014 468	2024 483	Growth 2	Replace 11		Outlook		Education Experience Training High school None Long OJT		★		1st R	2nd C	ī	Transportation, Distribution & Logistics
Model Makers, Metal and Plastic (51-4061): Set up and operate machines such as lathes, milling and engraving machines, and jig borers to make working models of metal or plastic objects. Includes template makers.	33	30	0	1	. 1	4	n/a	High School None Moderate OJT	*			R	С	I	Manufacturing
Models (41-9012): Model garments or other apparel and accessories for prospective buyers at fashion shows, retail establishments, or private showings. May pose for photos to be used in magazines or advertisements, or as subject for paintings, sculptures, or other types of artistic expression.	n	n	n	n	n	y.	n/a	Less than HS None None				Α	E	R	Marketing
Molders, Shapers, and Casters, Except Metal and Plastic (51-9195): Mold, shape, form, cast, or carve products such as food products, figurines, tile, pipes, and candles consisting of clay, glass, plaster, concrete, stone, or combinations of materials.	333	308	0	11	. 11	u	\$14.66	High school None Long OJT	*			R	С	Α	Manufacturing
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic (51-4072): Set up, operate, or tend metal or plastic molding, casting, or coremaking machines to mold or cast metal or thermoplastic parts or products.	1,178	942	0	18	18	u	\$14.59	High School None Moderate OJT	*			R	С	I	Manufacturing
Morticians, Undertakers and Funeral Directors (39-4031): Perform various tasks to arrange and direct funeral services, such as interviewing family to arrange details, selecting pallbearers, aiding with the selection of officials for religious rites, and providing transportation for mourners.	93	99	1	2	. 3	, A	\$20.98	Associate None Long OJT		*	*	E	S	С	Human Services
Motion Picture Projectionists (39-3021): Set up and operate motion picture projection and related sound reproduction equipment.	n	n	n	n	n	4	n/a	Less than HS None Short OJT				R	С	I	Hospitality & Tourism
Motor Vehicle Operators, All Other (53-3099): All motor vehicle operators not listed separately.	350	379	3	11	. 14	1	\$14.90	Less than HS None Short OJT							Transportation, Distribution & Logistics
Motorboat Mechanics and Service Technicians (49-3051): Repair and adjust electrical and mechanical equipment of inboard or inboard-outboard boat engines.	201	208	1	4	. 5	, u	\$20.18	High school None Long OJT	*	*		R	С		Transportation, Distribution & Logistics
Motorboat Operators (53-5022): Operate small motor-driven boats. May assist in navigational activities.	n	n	n	n	n	4	n/a	Postsecondary < 5 years None		*		R	С		Transportation, Distribution & Logistics
Motorcycle Mechanics (49-3052): Diagnose, adjust, repair, or overhaul motorcycles, scooters, mopeds, dirt bikes, or similar motorized vehicles.	221	226	0	4	. 4	u	\$20.29	Postsecondary None Short OJT	*			R	С	I	Transportation, Distribution & Logistics

	New Ha			t ional Pro Annual Op		Future	2015 Average	Entry-Level	prentice	Military	License		llan eres		Career Cluster
Occupation, SOC Code, and Description Multimedia Artists and Animators (27-1014): Create special effects, animation, or other visual images using film, video, computers, or other electronic tools and media for use in products or creations, such as computer games, movies, music videos, and commercials.	2014	120		Replace 2	Total 3	Outlook		Education Experience Training Bachelor None Moderate OJT	App	★		1st 2	2nd I		Arts, Audio/Video Technology & Communications
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4081): Set up, operate, or tend more than one type of cutting or forming machine tool or robot.	1,054	1,021	0	18	18	4	\$19.19	High School None Moderate OJT	*			R	С		Manufacturing
Museum Technicians and Conservators (25-4013): Restore, maintain, or prepare objects in museum collections for storage, research, or exhibit. May work with specimens such as fossils, skeletal parts, or botanicals, or art, artifacts, or textiles. May identify and record objects or arrange exhibits.	n	n	n	n	n	4	n/a	Bachelor None None				R	Α		Education & Training
Music Directors and Composers (27-2041): Conduct, direct, plan, and lead instrumental or vocal performances by musical groups, such as orchestras, bands, choirs, and glee clubs. Includes arrangers, composers, choral directors, and orchestrators.	596	621	2	17	19	7	\$27.07	Bachelor < 5 years None		*		Α	E	S	Arts, Audio/Video Technology & Communications
Musical Instrument Repairers and Tuners (49-9063): Repair percussion, stringed, reed, or wind instruments. May specialize in one area, such as piano tuning.	97	102	0	2	2	, A	\$19.43	High School None Apprentice	*	*		R	Α	I	Manufacturing
Musicians and Singers (27-2042): Play one or more musical instruments or sing. May perform on stage, for on-air broadcasting, or for sound or video recording.	19	21	0	1	1	7	n/a	Less than HS None Long OJT		*		Α	E		Arts, Audio/Video Technology & Communications
Natural Sciences Managers (11-9121): Plan, direct, or coordinate activities in such fields as life sciences, physical sciences, mathematics, statistics, and research and development in these fields.	109	114	0	2	2	ע	\$67.66	Bachelor 5+ years None		*		E	I		Agriculture, Food & Natural Resources
Network and Computer Systems Administrators (15-1142): Install, configure, and support an organization's local area network (LAN), wide area network (WAN), or Internet systems. Monitor network or web site to ensure correct operation, perform maintenance, or enact security measures.	1,827	1,923	10	24	34	7	\$36.56	Bachelor None None	*	*		I	R	С	Information Technology
New Accounts Clerks (43-4141): Interview persons desiring to open accounts in financial institutions. Explain account services available to prospective customers and assist them in preparing applications.	458	428	0	11	11	u	\$16.14	High School None Moderate OJT				С	E	•	Business Management & Administration
Nonfarm Animal Caretakers (39-2021): Feed, water, groom, bathe, exercise, or care for pets and other nonfarm animals such as dogs, cats, ornamental fish or birds, zoo animals, and mice. Work in kennels, animal shelters, zoos, circuses, or aquariums. May clean, disinfect, or repair cages or tanks.	1,043	1,166	12	22	34	↑	\$10.61	High School None Short OJT	*			R	С	` \	Agriculture, Food & Natural Resources
Nuclear Engineers (17-2161): Conduct research on nuclear engineering projects or apply principles and theory of nuclear science to problems concerned with release, control, and use of nuclear energy and nuclear waste disposal.	n	n	n	n	n	•	\$52.71	Bachelor None None		*	*	I	R	(Science, Technology, Engineering & Math

Occupation, SOC Code, and Description		yment	Avg. A	i onal Pro Annual Op Replace	enings	Future Outlook	_	Entry-Level Education Experience Training	Apprentice	Military	NH License	Ho Int	ollar tere:	sts	Career Cluster
Nuclear Medicine Technologists (29-2033): Prepare, administer, and measure radioactive isotopes in therapeutic, diagnostic, and tracer studies using a variety of radioisotope equipment. Prepare stock solutions of radioactive materials and calculate doses to be administered by radiologists.	52	51	0	1	1	•		Associate None None	P	*	2	I	R		Health Science
Nuclear Power Reactor Operators (51-8011): Operate or control nuclear reactors. Move control rods, start and stop equipment, monitor and adjust controls, and record data in logs. Implement emergency procedures. Respond to abnormalities, determine cause, and recommend action.	n	n	n	n	n	•	n/a	High school None Long OJT		*		R	С	E	Manufacturing
Nuclear Technicians (19-4051): Assist nuclear physicists, nuclear engineers, or other scientists in laboratory or production activities. May operate, maintain, or provide quality control for nuclear testing and research equipment. May monitor radiation.	n	n	n	n	n	u	n/a	Associate None Moderate OJT	*	*		R	С	I	Manufacturing
Nurse Anesthetists (29-1151): Administer anesthesia, monitor patient's vital signs, and oversee patient recovery from anesthesia. May assist anesthesiologists, surgeons, other physicians, or dentists. Must be registered nurses who have specialized graduate education.	n	n	n	n	n	^	\$104.60	Masters None None		*	*	I	R	S	Health Science
Nurse Midwives (29-1161): Diagnose and coordinate all aspects of the birthing process, either independently or as part of a healthcare team. May provide well-woman gynecological care. Must have specialized, graduate nursing education.	45	56	1	1	2	71	\$47.92	Masters None None		*	*	S	I	R	Health Science
Nurse Practitioners (29-1171): Diagnose and treat acute, episodic, or chronic illness, independently or as part of a healthcare team. May focus on health promotion and disease prevention. May order, perform, or interpret diagnostic tests such as lab work and x-rays. May prescribe medication.	770	1,045	28	18	46	↑	\$51.06	Masters None None		*	*	S	I	R	Health Science
Nursing Assistants (31-1014): Provide basic patient care under direction of nursing staff. Perform duties such as feed, bathe, dress, groom, or move patients, or change linens. May transfer or transport patients. Includes nursing care attendants, nursing aides, and nursing attendants.	8,548	10,026	148	193	341	↑	\$14.30	Postsecondary None None	*		*	S	С	R	Health Science
Nursing Instructors and Teachers, Postsecondary (25-1072): Demonstrate and teach patient care in classroom and clinical units to nursing students. May primarily teach or teach and conduct research.	189	217	3	3	6	7	\$74,263	Masters < 5 years None				S	I	Α	Education & Training
Obstetricians and Gynecologists (29-1064): Physicians who provide medical care related to pregnancy or childbirth and those who diagnose, treat, and help prevent diseases of women, particularly those affecting the reproductive system. May also provide general medical care to women.	117	136	2	3	5	7	\$125.11	Doctorate None Residency		*	*	I	s	R	Health Science
Occupational Health and Safety Specialists (29-9011): Review, evaluate, and analyze work environments and design procedures to control, eliminate, and prevent disease or injury caused by chemical, physical, and biological agents or ergonomic factors.	270	286	2	5	7	71	\$36.85	Bachelor None None	*	*	*	I	С		Government & Public Adminstration
Occupational Health and Safety Technicians (29-9012): Collect data on work environments for analysis by occupational health and safety specialists. Implement and conduct evaluation of programs designed to limit chemical, physical, biological, and ergonomic risks to workers.	43	47	0	1	1	7	\$23.39	High School None Moderate OJT	*	*	*	С	R	I	Government & Public Adminstration

			i i	ional Pro			2015		ntice	Military	sense		llan		
Occupation, SOC Code, and Description	Emplo 2014		_	Annual Op Replace		Future Outlook	Average Wage	Entry-Level Education Experience Training	Appre	Milita	필	Into 1st	e res 2nd		Career Cluster
Occupational Therapists (29-1122): Assess, plan, organize, and participate in rehabilitative programs that help build or restore vocational, homemaking, and daily living skills, as well as general independence, to persons with disabilities or developmental delays.	815	989				1	\$37.39	Masters None None	1						Health Science
Occupational Therapy Aides (31-2012): Under close supervision of an occupational therapist or occupational therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing patient and treatment room.	48	63	2	1	3	7	\$14.23	High School None Short OJT				s	R	С	Health Science
Occupational Therapy Assistants (31-2011): Assist occupational therapists in providing occupational therapy treatments and procedures. May assist in developing treatment plans, carry out routine functions, direct activity programs, and document the progress of treatments.	175	225	5	5	10	7	\$25.33	Associate None None		*	*	s	R	I	Health Science
Office and Administrative Support Workers, All Other (43-9199): All office and administrative support workers not listed separately.	3,147	3,454	31	85	116	↑	\$13.56	High School None Short OJT		*					Business Management & Administration
Office Clerks, General (43-9061): Perform duties too varied to be classified in a specific occupation, requiring knowledge of office systems and procedures. Duties may include answering telephones, bookkeeping, typing or word processing, stenography, office machine operation, and filing.	13,352	13,842	49	288	337	71	\$17.22	High School None Short OJT	*	*		С	E	R I	Business Management & Administration
Office Machine Operators, Except Computer (43-9071): Operate one or more of a variety of office machines, such as photocopying, photographic, and duplicating machines, or other office machines.	496	428	0	11	11	y .	\$13.10	High School None Short OJT				R	С		Business Management & Administration
Operating Engineers and Other Construction Equipment Operators (47-2073): Operate construction equipment such as graders, bulldozers, scrapers, compressors, pumps, derricks, shovels, tractors, or loaders to excavate, move, and grade earth, erect structures, or pour concrete.	949	995	5	16	21	7	\$21.44	High School None Moderate OJT	*	*		R	С	I	Architecture & Construction
Operations Research Analysts (15-2031): Formulate and apply mathematical modeling and other optimizing methods to develop and interpret information that assists management with decision making, policy formulation, or other managerial functions.	370	490	12	7	19	↑	n/a	Bachelor None None		*		I	С	- 1	Business Management & Administration
Ophthalmic Laboratory Technicians (51-9083): Cut, grind, and polish eyeglasses, contact lenses, or other precision optical elements. Assemble and mount lenses into frames or process other optical elements. Includes precision lens polishers or grinders, centerer-edgers, and lens mounters.	308	332	2	7	9	71	\$15.33	High School None Moderate OJT	*	*		R	С	I	Manufacturing
Ophthalmic Medical Technicians (29-2057): Assist ophthalmologists by performing ophthalmic clinical functions. May administer eye exams, administer eye medications, and instruct the patient in care and use of corrective lenses.	218	263	4	2	6	7	\$18.39	Postsecondary None None				С	S	R	Health Science
Opticians, Dispensing (29-2081): Design, measure, fit, and adapt lenses and frames according to optical prescription. Assist client with inserting, removing, and caring for contact lenses, or selecting eyeglass frames. Measure customer for size, and adjust frame and lens position to fit client.	501	617	12	13	25	↑	\$18.08	High school None Long OJT	*	*	*	E	С	R	Health Science

	New Ha	yment	Avg.	ional Pro	enings	Future	_	Entry-Level	prentice	Military	License	Int	ollan eres	its	Career Cluster
Occupation, SOC Code, and Description Optometrists (29-1041): Diagnose, manage, and treat conditions and diseases of the human eye and visual system. Examine eyes and visual system, diagnose problems or impairments, prescribe corrective lenses, and provide treatment. May prescribe therapeutic drugs to treat eye conditions.	160	2024	Growth 4	Replace 6	Total 10	Outlook		Education Experience Training Doctorate None None	Ap			1st I	2nd S		Health Science
Oral and Maxillofacial Surgeons (29-1022): Perform surgery and related procedures on the hard and soft tissues of the oral and maxillofacial regions to treat diseases, injuries, or defects. May diagnose problems of the oral and maxillofacial regions, or perform surgery to improve appearance.	n	n	n	n	n	7	\$138.63	Doctorate None Residency		*	*	R	S	I	Health Science
Order Clerks (43-4151): Receive and process orders for merchandise, materials, classified ads, or services such as facility rentals, repairs, or installations. Take orders via mail, phone, fax, or electronic means. Inform customers of receipt, prices, ship dates, or delays, and handle complaints.	940	968	3	26	29	7	\$16.60	High School None Short OJT				С	E	\	Business Management & Administration
Orderlies (31-1015): Transport patients to areas such as operating rooms or x-ray rooms using wheelchairs, stretchers, or moveable beds. May maintain stocks of supplies or clean and transport equipment.	97	103	1	2	3	n	\$13.46	High School None Short OJT				С	R	S	Health Science
Orthodontists (29-1023): Examine, diagnose, and treat dental malocclusions and oral cavity anomalies. Design and fabricate appliances to realign teeth and jaws to produce and maintain normal function and to improve appearance.	n	n	n	n	n	7	n/a	Doctorate None Residency		*	*	I	R	s	Health Science
Orthotists and Prosthetists (29-2091): Design, measure, fit, and adapt orthopedic braces, appliances or prostheses such as limbs or facial parts for patients with disabling conditions.	44	55	1	0	1	71	\$30.72	Masters None Internship	*	*		S	R	I	Health Science
Outdoor Power Equipment and Other Small Engine Mechanics (49-3053): Diagnose, adjust, repair, or overhaul small engines used to power lawn mowers, chain saws, recreational sporting equipment and related equipment.	306	320	1	6	7	7	\$17.30	High School None Moderate OJT	*			R	С	E	Manufacturing
Packaging and Filling Machine Operators and Tenders (51-9111): Operate or tend machines to prepare industrial or consumer products for storage or shipment. Includes cannery workers who pack food products.	1,011	1,069	6	36	42	71	\$16.07	High School None Moderate OJT				R	С	I	Manufacturing
Packers and Packagers, Hand (53-7064): Pack or package by hand a wide variety of products and materials.	1,975	2,062	9	52	61	7	\$11.58	Less than HS None Short OJT				R	С		Transportation, Distribution & Logistics
Painters, Construction and Maintenance (47-2141): Paint walls, equipment, buildings, bridges, and other structural surfaces using brushes, rollers, and spray guns. May remove old paint to prepare surface prior to painting. May mix colors or oils to obtain desired color or consistency.	1,225	1,292	7	20	27	7	\$17.83	Less than HS None Moderate OJT	*			R	С		Architecture & Construction
Painters, Transportation Equipment (51-9122): Operate or tend painting machines to paint surfaces of transportation equipment such as automobiles, buses, trucks, trains, boats, and airplanes. Includes painters in auto body repair facilities.	63	67	0	1	1	y .	\$21.58	High School None Moderate OJT	*			R	С	Α	Manufacturing

	New Ha			t ional Pro Annual Op		Future	2015 Average	Entry-Level	rentice	Military	License	Holla Intere		Career Cluster
Occupation, SOC Code, and Description	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	Арр	Mil	돌 1:	st 2nd	3rd	
Painting, Coating, and Decorating Workers (51-9123): Paint, coat, or decorate articles such as furniture, glass, plateware, pottery, jewelry, toys, books, or leather.	n	n	n	n	n	+	\$11.96	Less than HS None Moderate OJT	*			R A	С	Manufacturing
Paper Goods Machine Setters, Operators, and Tenders (51-9196): Set up, operate, or tend paper goods machines that perform a variety of functions, such as converting, sawing, corrugating, banding, wrapping, boxing, stitching, forming, or sealing paper or paperboard sheets into products.	204	170	0	3	3	4	\$20.33	High School None Moderate OJT	*		F	R C	I	Manufacturing
Paperhangers (47-2142): Cover interior walls or ceilings of rooms with decorative wallpaper or fabric, or attach advertising posters on surfaces such as walls and billboards. May remove old materials or prepare surfaces to be papered.	n	n	n	n	n	4	n/a	Less than HS None Long OJT	*		F	R C		Architecture & Construction
Paralegals and Legal Assistants (23-2011): Assist lawyers by investigating facts, preparing legal documents, or researching legal precedent. Conduct research to support a legal proceeding, to formulate a defense, or to initiate legal action.	1,265	1,317	5	28	33	7	\$24.35	Associate None None	*	*	(I C	Е	Law, Public Safety, Corrections & Security
Parking Enforcement Workers (33-3041): Patrol assigned area, such as public parking lot or city streets, to issue tickets to overtime parking violators and illegally parked vehicles.	56	44	0	2	. 2	4	\$17.61	High School None Short OJT			F	R C	E	Law, Public Safety, Corrections & Security
Parking Lot Attendants (53-6021): Park vehicles or issue tickets for customers in a parking lot or garage. May collect fee.	310	326	2	17	19	7	\$11.98	Less than HS None Short OJT			F	R C	Е	Transportation, Distribution & Logistics
Parts Salespersons (41-2022): Sell spare and replacement parts and equipment in repair shop or parts store.	1,472	1,529	6	33	39	7	\$14.91	Less than HS None Moderate OJT	*		ŀ	C	R	Marketing
Patternmakers, Metal and Plastic (51-4062): Lay out, machine, fit, and assemble castings and parts to metal or plastic foundry patterns, core boxes, or match plates.	n	n	n	n	n	•	n/a	High School None Moderate OJT	*		F	R C	I	Manufacturing
Paving, Surfacing, and Tamping Equipment Operators (47-2071): Operate equipment used for applying concrete, asphalt, or other materials to road beds, parking lots, or airport runways and taxiways, or equipment used for tamping gravel, dirt, or other materials.	228	234	1	5	6	u	\$18.88	High School None Moderate OJT	*	*	F	R C	Е	Architecture & Construction
Payroll and Timekeeping Clerks (43-3051): Compile and record employee time and payroll data. May compute employees' time worked, production, and commission. May compute and post wages and deductions, or prepare paychecks.	766	743	0	20	20	2	\$20.99	High School None Moderate OJT	*	*	(C E		Business Management & Administration
Pediatricians, General (29-1065): Physicians who diagnose, treat, and help prevent children's diseases and injuries.	156	166	1	4	. 5	u	\$90.88	Doctorate None Residency		*	* 1	ı s		Health Science

	New Ha	yment	Avg.	t ional Pro j Annual Op	enings	Future	_	•	prentice	Military	l License	Ho	ollar eres	its	Career Cluster
Occupation, SOC Code, and Description Personal Care Aides (39-9021): Assist the elderly, convalescents, or persons with disabilities with daily living activities at the person's home or in a care facility. May keep house (make beds, do laundry, wash dishes) and prepare meals. May provide assistance at non-residential care facilities.	5,535	6,734		Replace 45	Total 165	Outlook		Education Experience Training Less than HS None Short OJT	Ap	Mi	_N_	1st S	2nd R		Human Services
Personal Care and Service Workers, All Other (39-9099): All personal care and service workers not listed separately.	394	411	2	9	11	71	\$9.70	High School None Short OJT		*	*				Human Services
Personal Financial Advisors (13-2052): Advise clients on financial plans using knowledge of tax and investment strategies, securities, insurance, pension plans, and real estate. Assess clients' assets, liabilities, tax status, cash flow, insurance coverage, and financial objectives.	1,050	1,436	39	26	65	↑	\$59.23	Bachelor None Long OJT				E	С	S	Finance
Pest Control Workers (37-2021): Apply or release chemical solutions or toxic gases and set traps to kill or remove pests and vermin that infest buildings and surrounding areas.	234	235	0	6	6	Z Z	\$17.94	High School None Moderate OJT	*	*	*	R	С	E	Agriculture, Food & Natural Resources
Pesticide Handlers, Sprayers, and Applicators, Vegetation (37-3012): Mix or apply pesticides, herbicides, fungicides, or insecticides using sprays, dusts, vapors, soil incorporation, or chemical application on trees, shrubs, lawns, or crops. Specific training and/or State certification required.	32	35	0	1	1	7	n/a	High School None Moderate OJT	*		*	R	С	I	Agriculture, Food & Natural Resources
Petroleum Pump System Operators, Refinery Operators, and Gaugers (51-8093): Operate or control petroleum refining or processing units. May specialize in controlling manifold and pumping systems, gauging or testing oil in storage tanks, or regulating the flow of oil into pipelines.	n	n	n	n	n	7	\$25.82	High school None Long OJT	*			R	С	E	Manufacturing
Pharmacists (29-1051): Dispense drugs prescribed by physicians and other health practitioners and provide information to patients about medications and their use. May advise physicians and other health practitioners on the selection, dosage, interactions, and side effects of medications.	1,089	1,132	4	25	29	7	\$61.77	Doctorate None None		*	*	I	С	S	Health Science
Pharmacy Aides (31-9095): Record drugs delivered to the pharmacy, store incoming merchandise, and inform the supervisor of stock needs. May operate cash register and accept prescriptions for filling.	n	n	n	n	n	n	\$12.73	High School None Short OJT				С	R		Health Science
Pharmacy Technicians (29-2052): Prepare medications under the direction of a pharmacist. May measure, mix, count out, label, and record amounts and dosages of medications according to prescription orders.	1,362	1,521	16	14	30	1	\$14.46	High School None Moderate OJT	*	*	*	С	R	S	Health Science
Philosophy and Religion Teachers, Postsecondary (25-1126): Teach courses in philosophy, religion, and theology. May primarily teach or teach and conduct research.	101	110	1	2	3	7	\$90,017	Doctorate None None				S	Α	I	Education & Training
Phlebotomists (31-9097): Draw blood for tests, transfusions, donations, or research. May explain the procedure to patients and assist in the recovery of patients with adverse reactions.	669	790	12	14	26	↑	\$16.87	Postsecondary None None	*			С	R	I	Health Science

			1	tional Pro			2015		ntice	Military	ense		ollar		
Occupation, SOC Code, and Description	Emplo 2014		_	Annual Or Replace		Future Outlook	Average Wage	Entry-Level Education Experience Training	Appre	Milita	NH Lic	Int 1st	eres 2nd		Career Cluster
Photographers (27-4021): Photograph people, landscapes, merchandise, or other subjects, using digital or film cameras and equipment. May develop negatives or use computers to produce finished images and prints. Includes scientific photographers, aerial photographers, and photojournalists.	521	529				7	\$15.34	High school None Long OJT	*			Α	R		Arts, Audio/Video Technology & Communications
Photographic Process Workers and Processing Machine Operators (51-9151): Perform work involved in developing and processing photographic images from film or digital media. May perform precision tasks such as editing photographic negatives and prints.	219	154	0	4		•	\$12.11	High School None Short OJT	*	*		С	R	Α	Manufacturing
Physical Scientists, All Other (19-2099): All physical scientists not listed separately. Includes Remote Sensing Scientists and Technologists.	212	219	1	2	3	7	\$34.29	Bachelor None None		*					Science, Technology, Engineering & Math
Physical Therapist Aides (31-2022): Under close supervision of a physical therapist or physical therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing the patient and the treatment area.	135	178	4	4	8	71	\$14.38	High School None Short OJT	*			S	R	С	Health Science
Physical Therapist Assistants (31-2021): Assist physical therapists in providing physical therapy treatments and procedures. May assist in the development of treatment plans, carry out routine functions, document progress, and modify treatments according to patient status.	515	699	18	15	33	↑	\$26.78	Associate None None		*	*	S	R	I	Health Science
Physical Therapists (29-1123): Assess, plan, organize, and participate in rehabilitative programs that improve mobility, relieve pain, increase strength, and improve or correct disabling conditions resulting from disease or injury.	1,453	1,905	45	39	84	↑	\$38.95	Doctorate None None		*	*	S	I	R	Health Science
Physician Assistants (29-1071): Provide healthcare services typically performed by a physician, under the supervision of a physician. Conduct physicals, provide treatment, and counsel patients. May prescribe medication. Must graduate from an accredited physician assistant program.	538	705	17	12	29	1	\$54.36	Masters None None		*	*	S	I	R	Health Science
Physicians and Surgeons, All Other (29-1069): All physicians not listed separately. Includes Allergists and Immunologists; Urologists; Hospitalists; Dermatologists; Neurologists; Ophthalmologists; Pathologists; Radiologists; Sports Medicine; Physical and Rehab Medicine; and Nuclear Medicine.	1,964	2,299	34	53	87	↑	\$117.65	Doctorate None Residency		*	*				Health Science
Physicists (19-2012): Conduct research into physical phenomena, develop theories on the basis of observation and experiments, and devise methods to apply physical laws and theories.	55	58	0	1	1	y .	\$43.00	Doctorate None None		*		I	R	Δ	Science, Technology, Engineering & Math
Physics Teachers, Postsecondary (25-1054): Teach courses pertaining to the laws of matter and energy. May primarily teach or teach and conduct research.	76	84	1	1	2	7	\$113,518	Doctorate None None		*		S	I		Education & Training
Pile-Driver Operators (47-2072): Operate pile drivers mounted on skids, barges, crawler treads, or locomotive cranes to drive pilings for retaining walls, bulkheads, and foundations of structures, such as buildings, bridges, and piers.	n	n	n	n	r	•	n/a	High School None Moderate OJT				R	С	I	Architecture & Construction

Occupation, SOC Code, and Description	New Ha Emplo 2014	yment	Avg.	tional Pro Annual O _l Replace	penings	Future Outlook	_	Entry-Level Education Experience Training	Apprentice	Military	NH License	Ho Int	ollar tere: 2nd	sts	Career Cluster
Pipelayers (47-2151): Lay pipe for storm or sanitation sewers, drains, and water mains. Perform any combination of the following tasks: grade trenches or culverts, position pipe, or seal joints.	144	151	1	2	. 3	2		Less than HS None Short OJT	1	*	7	R	С	E	Architecture & Construction
Plant and System Operators, All Other (51-8099): All plant and system operators not listed separately. Includes Biofuel Processing Technicians; Methane/Landfill Gas Generation System Technicians; Biomass Plant Technicians; and Hydroelectric Plant Technicians.	89	85	0	3	3	Ψ.	\$25.56	High school None Long OJT		*	*				Manufacturing
Plasterers and Stucco Masons (47-2161): Apply interior or exterior plaster, cement, stucco, or similar materials. May also set ornamental plaster.	n	n	n	n	ı r	4	n/a	Less than HS None Long OJT	*			R	С	Α	Architecture & Construction
Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic (51-4193): Set up, operate, or tend machines to coat metal or plastic products with chromium, zinc, copper, cadmium, nickel, or other metal to protect or decorate surfaces. Includes electrolytic processes.	110	93	0	3	3	Ψ	\$14.69	High School None Moderate OJT	*			R	С	I	Manufacturing
Plumbers, Pipefitters, and Steamfitters (47-2152): Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. Includes sprinklerfitters.	1,776	1,903	13	24	37	· •	\$25.02	High School None Apprentice	*	*	*	R	С	I	Architecture & Construction
Podiatrists (29-1081): Diagnose and treat diseases and deformities of the human foot.	n	n	n	n	ı r	Ä	n/a	Doctorate None Residency		*	*	I	S	R	Health Science
Police and Sheriffs Patrol Officers (33-3051): Maintain order and protect life and property by enforcing local, tribal, State, or Federal laws and ordinances. Patrol a specific area; direct traffic; issue traffic summonses; investigate accidents; apprehend and arrest suspects; or serve legal papers.	2,844	3,010	17	94	111	7	\$25.60	High School None Moderate OJT	*	*	*	R	E	S	Law, Public Safety, Corrections & Security
Police, Fire, and Ambulance Dispatchers (43-5031): Operate radio, telephone, or computer equipment at emergency response centers. Receive reports of crimes, disturbances, fires, and medical or police emergencies. Relay information to law enforcement and emergency response personnel.	695	671	0	17	17	ע	\$19.93	High School None Moderate OJT	*			С	R	Е	Law, Public Safety, Corrections & Security
Political Science Teachers, Postsecondary (25-1065): Teach courses in political science, international affairs, and international relations. May primarily teach or teach and conduct research.	64	67	0	1	. 1	4	\$98,933	Doctorate None None				S	E	Α	Education & Training
Political Scientists (19-3094): Study the origin, development, and operation of political systems. May study topics, such as public opinion, political decision-making, and ideology, or analyze the structure and operation of governments. May conduct opinion surveys, or analyze election results.	n	n	n	n	ı r	7	n/a	Masters None None		*		I	Α		Science, Technology, Engineering & Math
Postal Service Clerks (43-5051): Perform a combination of tasks in a post office, such as receive letters and parcels; sell postage and stamps, post cards, and stamped envelopes; fill out and sell money orders; place mail in pigeon holes of mail rack or in bags; and examine mail for correct postage.	439	336	0	5	5	ψ.	\$24.26	High School None Short OJT	*	*		С	R	S	Business Management & Administration

	Emplo	yment	Avg.	t ional Pro Annual Op	enings	Future	_	•	prentice	Military	l License	Int	llan	ts	Career Cluster
Occupation, SOC Code, and Description Postal Service Mail Carriers (43-5052): Sort mail for delivery. Deliver mail on established route by vehicle or on foot.	1,467	1,120		Replace 28	Total 28	Outlook		Education Experience Training High School None Short OJT	Ap	ΙΝ	Z	1st :	2nd R	F	Business Management & Administration
Postal Service Mail Sorters, Processors, and Processing Machine Operators (43-5053): Prepare outgoing and incoming mail for distribution. Examine, sort, and route mail. Load, operate, or repair mail processing, sorting, or cancelling machinery. Keep records of shipments, pouches, and sacks.	655	450	0	8	8	u	\$24.45	High School None Short OJT				С	R		Business Management & Administration
Postmasters and Mail Superintendents (11-9131): Plan, direct, or coordinate operational, administrative, management, and supportive services of a U.S. post office; or coordinate activities of workers engaged in postal and related work in assigned post office.	166	127	0	4	4	•	\$33.91	High School < 5 years Moderate OJT		*		E	С	` \	Government & Public Adminstration
Postsecondary Teachers, All Other (25-1199): May primarily teach or teach and conduct research.	905	959	5	16	21	71	\$71,864	Doctorate None None		*					Education & Training
Pourers and Casters, Metal (51-4052): Operate hand-controlled mechanisms to pour and regulate the flow of molten metal into molds to produce castings or ingots.	60	49	0	2	2	•	\$20.48	High School None Moderate OJT				R	С		Manufacturing
Power Distributors and Dispatchers (51-8012): Coordinate, regulate, or distribute electricity or steam.	n	n	n	n	n	•	n/a	High school None Long OJT	*			R	I	С	Manufacturing
Power Plant Operators (51-8013): Control, operate, or maintain machinery to generate electric power. Includes auxiliary equipment operators.	168	152	0	6	6	2	\$28.60	High school None Long OJT	*	*		R	С	E	Manufacturing
Precision Instrument and Equipment Repairers, All Other (49-9069): All precision instrument and equipment repairers not listed separately.	143	146	0	3	3	4	\$31.20	High school None Long OJT		*	*				Manufacturing
Prepress Technician and Workers (51-5111): Format and proof text and images submitted by designers and clients into finished pages that can be printed. Includes digital and photo typesetting. May produce printing plates.	141	108	0	2	2	•	\$22.09	Postsecondary None None	*	*		R	С		Arts, Audio/Video Technology & Communications
Preschool Teachers, Except Special Education (25-2011): Instruct preschoolaged children in activities designed to promote social, intellectual, and physical growth needed for primary school in preschool, day care center, or other child development facility. May be required to hold State certification.	2,854	3,001	15	84	99	7	\$14.16	Associate None None			*	s	Α	E	Education & Training
Pressers, Textile, Garment, and Related Materials (51-6021): Press or shape articles by hand or machine.	271	255	0	6	6	u	\$10.16	Less than HS None Short OJT				R	С	I	Human Services

	New Ha	yment	Avg.	t ional Pro Annual O _l	penings	Future	2015 Average	•	prentice	Military	License	Inte		ts	Career Cluster
Occupation, SOC Code, and Description Print Binding and Finishing Workers (51-5113): Bind books and other publications or finish printed products by hand or machine. May set up binding and finishing machines.	2014	2024		Replace	Total	Outlook		Education Experience Training High School None Short OJT	★ Ap	Mil		1st 2		A	Arts, Audio/Video Technology & Communications
Printing Press Operators (51-5112): Set up and operate digital, letterpress, lithographic, flexographic, gravure, or other printing machines. Includes short-run offset printing presses.	914	859	0	14	14	ע	\$17.92	High School None Moderate OJT	*	*		R	С	-	Arts, Audio/Video Technology & Communications
Private Detectives and Investigators (33-9021): Gather, analyze, compile and report information regarding individuals or organizations to clients, or detect occurrences of unlawful acts or infractions of rules in private establishment.	60	64	0	2	. 2	u	\$21.48	High School < 5 years Moderate OJT	*		*	E	с	ĸ	Law, Public Safety, Corrections & Security
Probation Officers and Correctional Treatment Specialists (21-1092): Provide social services to assist in rehabilitation of law offenders in custody or on probation or parole. Recommend actions to formulate rehabilitation plan and treatment of offender, such as education or employment stipulations.	173	182	1	3	. 4	'	\$28.42	Bachelor None Short OJT		*		S	E		Law, Public Safety, Corrections & Security
Procurement Clerks (43-3061): Compile information and records to draw up purchase orders for procurement of materials and services.	467	446	0	16	5 16	4	\$17.77	High School None Moderate OJT		*		С	E		Business Management & Administration
Producers and Directors (27-2012): Produce or direct stage, television, radio, video, or motion picture productions for entertainment, information, or instruction. Make creative decisions such as choice of actors or guests, interpretation of script, set design, sound, special effects, or choreography.	218	241	2	7	, g	7	\$27.20	Bachelor < 5 years None	*	*		E	A	С	Arts, Audio/Video Technology & Communications
Production Workers, All Other (51-9199): All production workers not listed separately. Includes Recycling and Reclamation Workers.	2,222	2,371	15	46	61	7	\$14.52	High School None Moderate OJT	*	*					Manufacturing
Production, Planning, and Expediting Clerks (43-5061): Coordinate and expedite the flow of work and materials within an establishment according to production schedule. Review and distribute schedules; confer with supervisors; and compile reports on progress, inventory, costs, or problems.	1,195	1,224	3	32	. 35	7	\$24.71	High School None Moderate OJT	*	*		С	E	R	Manufacturing
Proofreaders and Copy Markers (43-9081): Read transcript or proof type setup to detect and mark for correction any grammatical, typographical, or compositional errors. Excludes workers whose primary duty is editing copy. Includes proofreaders of Braille.	52	57	0	1	. 1	71	\$18.95	Bachelor None None				c .	Α	-	Arts, Audio/Video Technology & Communications
Property, Real Estate, and Community Association Managers (11-9141): Plan, direct, or coordinate the selling, buying, leasing, or governance activities of commercial, industrial, or residential real estate properties. Manage home owner or condo associations, rented or leased housing, or rights-of-way.	1,074	1,190	12	19) 31	1	\$35.36	High School < 5 years None	*			E	С	S	Marketing
Prosthodontists (29-1024): Construct oral prostheses to replace missing teeth and other oral structures to correct natural and acquired deformation of mouth and jaws, to restore and maintain oral function, such as chewing and speaking, and to improve appearance.	n	n	n	n	ı r	ע	n/a	Doctorate None Residency		*	*	I	R	S	Health Science

	New Ha			t ional Pro Annual Op		Future	2015 Average	Entry-Level	orentice	Military	License		ollar eres		Career Cluster
Occupation, SOC Code, and Description Protective Service Workers, All Other (33-9099): All protective service workers not listed separately. Includes Retail Loss Prevention Specialists.	322	344	Growth 2	Replace 4	Total 6	Outlook		Education Experience Training High School None Short OJT	Apk	★ Mil	IZ	1st	2nd		Law, Public Safety, Corrections & Security
Psychiatric Aides (31-1013): Assist mentally impaired or emotionally disturbed patients, under direction of nursing and medical staff. May assist with daily living activities, lead patients in educational and recreational activities, or accompany patients to and from exams and treatments.	n	n	n	n	n	y .	n/a	High School None Short OJT		*		s	R	С	Health Science
Psychiatric Technicians (29-2053): Care for individuals with mental or emotional conditions or disabilities, per instructions of physician or health practitioner. Monitor patients' physical and emotional well-being. May assist in treatment, help with personal hygiene, or administer medication.	41	47	1	0	1	7	\$16.17	Postsecondary < 5 years Short OJT		*		S	R	E	Health Science
Psychiatrists (29-1066): Physicians who diagnose, treat, and help prevent disorders of the mind.	85	102	2	2	4	71	\$102.58	Doctorate None Residency		*	*	I	S	Α	Health Science
Psychologists, All Other (19-3039): All psychologists not listed separately. Includes Neuropsychologists and Clinical Neuropsychologists.	23	26	0	0	a	n	n/a	Masters None Internship		*					Human Services
Psychology Teachers, Postsecondary (25-1066): Teach courses in psychology, such as child, clinical, and developmental psychology, and psychological counseling. May primarily teach or teach and conduct research.	210	234	2	4	6	7	\$83,659	Doctorate None None		*		S	I	Α	Education & Training
Public Address System and Other Announcers (27-3012): Make announcements over public address system at sporting or other public events. May act as master of ceremonies or disc jockey at weddings, parties, clubs, or other gathering places.	n	n	n	n	n	•	n/a	High School None Short OJT				S	E		Arts, Audio/Video Technology & Communications
Public Relations and Fundraising Managers (11-2031): Plan, direct, or coordinate activities designed to create or maintain a favorable public image or raise issue awareness for an organization or client; or plan, direct, or coordinate activities to solicit and maintain funds for nonprofits.	378	404	3	13	16	7	\$52.96	Bachelor 5+ years None		*		E	Α		Marketing
Public Relations Specialists (27-3031): Engage in promoting or creating an intended public image for individuals, groups, or organizations. May write or select material for release to various communications media.	983	1,075	9	12	21	↑	\$30.74	Bachelor None None	*	*		E	Α	S	Marketing
Pump Operators, Except Wellhead Pumpers (53-7072): Tend, control, or operate power-driven, stationary, or portable pumps and manifold systems to transfer gases, oil, other liquids, slurries, or powdered materials to and from various vessels and processes.	59	62	0	3	3	u	\$21.38	High School None Moderate OJT		*		R	С	I	Transportation, Distribution & Logistics
Purchasing Agents, Except Wholesale, Retail, and Farm Products (13-1023): Purchase machinery, equipment, tools, parts, supplies, or services necessary for the operation of an establishment. Purchase raw or semi-finished materials for manufacturing.	1,453	1,487	3	40	43	7	\$29.87	Bachelor None Long OJT	*	*		С	E	R	Manufacturing

Occupation SOC Code and Description		mpshire (Avg.	tional Pr Annual C Replace	penings	5	Future Outlook	_	Entry-Level Education Experience Training	pprentice	Military	H License		ollan eres	its	Career Cluster
Occupation, SOC Code, and Description Purchasing Managers (11-3061): Plan, direct, or coordinate the activities of buyers, purchasing officers, and related workers involved in purchasing materials, products, and services. Includes wholesale or retail trade merchandising managers and procurement managers.	354	365	1	Керіас	8	9	3		Bachelor 5+ years None	A	*		E	C		Business Management & Administration
Radiation Therapists (29-1124): Provide radiation therapy to patients as prescribed by a radiologist. May review prescription and diagnosis; act as liaison with physician and support personnel; prepare equipment, such as immobilization, treatment, and protection devices; and maintain records.	116	125	1		3	4	7	\$39.64	Associate None None		*		S	R	С	Health Science
Radio and Television Announcers (27-3011): Speak or read from scripted materials, such as news reports or commercial messages, on radio or television. May announce artist or title of performance, identify station, or interview guests.	121	111	O		4	4	+	\$15.26	Bachelor None Short OJT		*		Α	E	S	Arts, Audio/Video Technology & Communications
Radio, Cellular, and Tower Equipment Installers and Repairers (49-2021): Repair, install, or maintain radio transmitting, broadcasting, and receiving equipment for two-way cellular, mobile broadband, aircraft-to-ground, or ship-to-shore communications; or radios in service or emergency vehicles.	n	n	n		n	n	+	\$23.55	Associate None Moderate OJT	*	*		R	С	I	Manufacturing
Radiologic Technologists (29-2034): Take x-rays and CAT scans or administer nonradioactive materials into patient's blood stream for diagnostic purposes. Includes technologists who specialize in other scanning modalities.	773	803	3	1	5 :	18	7	\$30.04	Associate None None	*	*		R	s	I	Health Science
Rail Transportation Workers, All Other (53-4099): All rail transportation workers not listed separately.	n	n	n		n	n	+	n/a	High School None Moderate OJT							Transportation, Distribution & Logistics
Railroad Brake, Signal, and Switch Operators (53-4021): Operate railroad track switches. Couple or uncouple rolling stock to make up or break up trains. Signal engineers by hand or flagging. May inspect couplings, air hoses, journal boxes, and hand brakes.	n	n	n		n	n	+	n/a	High School None Moderate OJT				R	С		Transportation, Distribution & Logistics
Railroad Conductors and Yardmasters (53-4031): Coordinate activities of switch-engine crew within rail yard, industrial plant, or similar location. Conductors coordinate activities of crew on trains. Yardmasters review schedules and switching orders, and coordinate railroad traffic operations.	23	27	0		1	1	7	\$17.82	High School None Moderate OJT				E	R	С	Transportation, Distribution & Logistics
Rail-Track Laying and Maintenance Equipment Operators (47-4061): Lay, repair, and maintain track for standard or narrow-gauge rail equipment used in regular railroad service or in plant yards, quarries, sand and gravel pits, and mines. Operate ballast cleaning or rail bed tamping machines.	10	12	O		0	0	n n	n/a	High School None Moderate OJT		*		R	С		Transportation, Distribution & Logistics
Real Estate Brokers (41-9021): Operate real estate office, or work for commercial real estate firm, overseeing real estate transactions. Other duties usually include selling real estate or renting properties and arranging loans.	317	323	1		2	3	ĸ	\$63.75	High School < 5 years None			*	E	С		Marketing
Real Estate Sales Agents (41-9022): Rent, buy, or sell property for clients. Perform duties such as study property listings, interview prospective clients, accompany clients to property site, discuss conditions of sale, and draw up real estate contracts. Includes agents who represent buyer.	332	341	1		2	3	u	\$20.75	High School None Moderate OJT			*	E	С	S	Marketing

	New Ha			i onal Pro j Annual Op		Future	2015 Average	Entry-Level	rentice	Military	License	Ho Int	ollar tere:		Career Cluster
Occupation, SOC Code, and Description	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	Арр	Μij	풀	1st	2nd	3rd	
Receptionists and Information Clerks (43-4171): Answer inquiries and provide information to the general public, customers, visitors, and other interested parties regarding activities conducted at establishment and location of departments, offices, and employees within the organization.	5,270	5,648	38	142	180	↑	\$13.64	High School None Short OJT				С	E	S	Business Management & Administration
Recreation and Fitness Studies Teachers, Postsecondary (25-1193): Teach courses pertaining to recreation, leisure, and fitness studies, including exercise physiology and facilities management. May primarily teach or teach and conduct research.	59	62	0	1	1	u	\$73,419	Doctorate None None		*		S	Α	R	Education & Training
Recreation Workers (39-9032): Conduct recreation activities with groups in public, private, or volunteer agencies or recreation facilities. Organize and promote activities such as arts and crafts, sports, games, music, dramatics, camping, and hobbies, based on member needs and interests.	1,939	2,161	22	36	58	↑	\$13.30	High School None Short OJT	*	*		S	E	Α	Hospitality & Tourism
Recreational Therapists (29-1125): Plan, direct, or coordinate medically-approved recreation for patients in hospitals, nursing homes, or other institutions. Activities include sports, trips, dramatics, social activities, and arts and crafts. May assess patient condition and recommend activity.	74	81	1	2	3	71	\$22.29	Bachelor None None			*	S	Α	I	Health Science
Recreational Vehicle Service Technicians (49-3092): Diagnose, inspect, adjust, repair, or overhaul recreational vehicles including travel trailers. May specialize in maintaining gas, electrical, hydraulic, plumbing, or chassis/towing systems, or repair generators, appliances, and interiors.	107	109	0	4	4	u	\$17.22	High school None Long OJT	*			R	I	С	Transportation, Distribution & Logistics
Refuse and Recyclable Material Collectors (53-7081): Collect and dump refuse or recyclable materials from containers into truck. May drive truck.	787	849	6	20	26	↑	\$15.24	Less than HS None Short OJT				R	С	E	Agriculture, Food & Natural Resources
Registered Nurses (29-1141): Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention.	12,592	14,528	194	297	491	↑	\$32.30	Associate None None		*	*	S	I	С	Health Science
Rehabilitation Counselors (21-1015): Counsel individuals coping with social, personal, and vocational difficulties resulting from birth defects, illness, disease, accidents, or the stress of daily life. Assess client needs and design rehabilitation programs, such as counseling, training, or job placement.	530	597	7	11	18	↑	n/a	Masters None None				S	I	Α	Human Services
Reinforcing Iron and Rebar Workers (47-2171): Position and secure steel bars or mesh in concrete forms in order to reinforce concrete. Use a variety of fasteners, rod-bending machines, blowtorches, and hand tools. Includes rod busters.	n	n	n	n	n	•	n/a	High School None Apprentice	*			R	С	I	Architecture & Construction
Religious Workers, All Other (21-2099): All religious workers not listed separately.	179	188	1	3	4	u	n/a	Bachelor None None		*					Human Services
Reporters and Correspondents (27-3022): Collect and analyze facts about newsworthy events by interview, investigation, or observation. Report and write stories for newspaper, news magazine, radio, or television.	336	294	0	11	11	y .	\$17.60	Bachelor None None		*		Α	E	I	Arts, Audio/Video Technology & Communications

	Emplo	yment	Avg.	ional Pro	enings	Future	_	Entry-Level	prentice	Military	1 License	He	ollar teres	sts	Career Cluster
Occupation, SOC Code, and Description Reservation and Transportation Ticket Agents and Travel Clerks (43-4181): Make and confirm reservations for transportation or lodging, or sell transportation tickets. Check baggage; direct passengers to concourse, pier, or track; deliver tickets; or provide travel or transport information.	148	169	Growth 2	Replace 2	Total 4	Outlook		Education Experience Training High School None Short OJT	Ap	★	Z	1st C	2nd E		Hospitality & Tourism
Residential Advisors (39-9041): Coordinate activities in secondary and college dormitories, group homes, or similar establishments. Order supplies and determine need for maintenance, repairs, and furnishings. May assign rooms. May assist residents with problems or refer them to counseling.	332	360	3	10	13	↑	\$14.80	High School None Short OJT	*	*		S	E	С	Human Services
Respiratory Therapists (29-1126): Assess, treat, and care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities. Initiate and conduct therapeutic procedures; maintain patient records; and select, assemble, check, and operate equipment.	372	412	4	9	13	↑	\$29.96	Associate None None			*	S	I	R	Health Science
Respiratory Therapy Technicians (29-2054): Provide respiratory care under the direction of respiratory therapists and physicians.	n	n	n	n	n	•	n/a	Associate None None		*		S	R	I	Health Science
Retail Salespersons (41-2031): Sell merchandise, such as furniture, motor vehicles, appliances, or apparel to consumers.	27,320	29,054	173	947	1120	7	\$12.65	Less than HS None Short OJT		*		E	С	S	Marketing
Riggers (49-9096): Set up or repair rigging for construction projects, manufacturing plants, logging yards, ships and shipyards, or for the entertainment industry.	n	n	n	n	n	2	\$18.60	High School None Short OJT	*	*		R	С	I	Architecture & Construction
Rolling Machine Setters, Operators, and Tenders, Metal and Plastic (51-4023): Set up, operate, or tend machines to roll steel or plastic forming bends, beads, knurls, rolls, or plate or to flatten, temper, or reduce gauge of material.	33	30	0	1	1	•	\$17.67	High School None Moderate OJT	*			R	С	E	Manufacturing
Roofers (47-2181): Cover roofs of structures with shingles, slate, asphalt, aluminum, wood, or related materials. May spray roofs, sidings, and walls with material to bind, seal, insulate, or soundproof sections of structures.	260	283	2	4	6	7	\$20.85	Less than HS None Moderate OJT	*			R	С		Architecture & Construction
Sailors and Marine Oilers (53-5011): Stand watch, measure water depth, turn wheel on bridge, or use emergency equipment as directed by captain, mate, or pilot. Break out, rig, overhaul, and store rigging or running gear. Perform maintenance to preserve ship's painted surface and to maintain equipment.	n	n	n	n	n	•	n/a	Less than HS None Moderate OJT	*	*		R	С	E	Transportation, Distribution & Logistics
Sales and Related Workers, All Other (41-9099): All sales and related workers not listed separately.	838	928	9	12	21	↑	\$19.35	High School None None			*				Marketing
Sales Engineers (41-9031): Sell business goods or services, the selling of which requires a technical background equivalent to a baccalaureate degree in engineering. Excludes Engineers whose primary function is not marketing or sales.	517	548	3	13	16	7	\$58.36	Bachelor None Moderate OJT				E	R	I	Marketing

	Emplo	yment	Avg.	t ional Pro j Annual Op	enings	Future	_	Entry-Level	prentice	Military	1 License	H In	ollar tere	sts	Career Cluster
Occupation, SOC Code, and Description Sales Managers (11-2022): Plan, direct, or coordinate the distribution or movement of a product or service to customers. Coordinate sales by establishing sales territories, quotas, and goals, and establish training programs for sales reps. Analyze sales statistics gathered by staff.	2,007	2,145		Replace 48	Total 62	Outlook		Education Experience Training Bachelor < 5 years None	Ap	Mi	Z	1st	2nd C		Marketing
Sales Representatives, Services, All Other (41-3099): All services sales representatives not listed separately. Includes Energy Brokers.	3,227	3,585	36	69	105	1	\$37.16	High School None Moderate OJT							Marketing
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (41-4012): Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.	6,830	7,356	53	140	193	1	\$36.32	High School None Moderate OJT				С	Е		Marketing
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products (41-4011): Sell goods for wholesalers or manufacturers requiring technical or scientific knowledge, such as biology, engineering, electronics, or chemistry, obtained from two or more years of postsecondary	3,213	3,465	25	66	91	↑	\$47.38	Bachelor None Moderate OJT				E	С		Marketing
Sawing Machine Setters, Operators, and Tenders, Wood (51-7041): Set up, operate, or tend wood sawing machines. May operate CNC equipment. Includes lead sawyers.	226	237	1	6	7	7	\$14.16	High School None Short OJT	*			R	С	I	Manufacturing
Secondary School Teachers, Except Special and Career/Technical Education +A667(25-2031): Teach students in one or more subjects, such as English, mathematics, or social studies at the secondary level in public or private schools. May be designated according to subject matter specialty.	4,981	5,142	16	118	134	7	\$56,845	Bachelor None Internship			*	s	Α	E	Education & Training
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (43-6014): Perform routine clerical and administrative functions. Draft correspondence, schedule appointments, organize and maintain paper and	11,555	11,950	40	122	162	7	\$16.29	High School None Short OJT	*	*		С	E	S	Business Management & Administration
Securities, Commodities, and Financial Services Sales Agents (41-3031): Buy and sell securities or commodities in investment and trading firms, or provide financial services to businesses and individuals. May advise clients on stocks, bonds, mutual funds, commodities, or market conditions.	1,698	1,908	21	29	50	^	\$72.00	Bachelor None Moderate OJT			*	E	С	S	Finance
Security and Fire Alarm Systems Installers (49-2098): Install, program, maintain, and repair security and fire alarm wiring and equipment. Ensure that work is in accordance with relevant codes.	236	292	6	6	12	↑	\$23.45	High School None Moderate OJT	*	*		R	С	I	Manufacturing
Security Guards (33-9032): Guard, patrol, or monitor premises to prevent theft, violence, or infractions of rules. May operate x-ray and metal detector equipment.	2,585	2,926	34	36	70	↑	\$15.39	High School None Short OJT	*	*	*	R	С	E	Law, Public Safety, Corrections & Security
Self-Enrichment Education Teachers (25-3021): Teach or instruct courses other than those normally leading to an occupation or degree. Courses may include self-improvement, nonvocational, and nonacademic subjects. Teaching may or may not take place in a traditional educational institution.	1,585	1,894	31	30	61	↑	\$20.72	High School < 5 years None			*	s	Α	E	Education & Training

	Emplo	mpshire (Avg.	Annual O	penings	Future	_	Entry-Level	oprentice	Military	H License	Int	ollan eres	ts	Career Cluster
Occupation, SOC Code, and Description Semiconductor Processors (51-9141): Perform any or all functions in the manufacture of semiconductors: load material into furnace; saw formed ingots into segments; load into crystal growing chamber; saw ingots into wafers; and load wafers into chemical baths used to form circuitry.	115	113		Replace	2 2	Outlook		Education Experience Training Associate None Moderate OJT	Αķ	Σ	Z	1st R	C		Manufacturing
Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders (51-9012): Set up, operate, or tend equipment to extract, sort, or separate liquids, gases, or solids from other materials to recover a refined product.	169	183	1	!	5 6	7	\$20.86	High School None Moderate OJT	*			R	С	I	Manufacturing
Septic Tank Servicers and Sewer Pipe Cleaners (47-4071): Clean and repair septic tanks, sewer lines, or drains. May patch walls and partitions of tank, replace damaged drain tile, or repair breaks in underground piping.	132	166	3	:	3 6	7	\$16.38	Less than HS None Moderate OJT			*	R	E	С	Architecture & Construction
Set and Exhibit Designers (27-1027): Design special exhibits and movie, television, and theater sets. May study scripts, confer with directors, and conduct research to determine appropriate architectural styles.	38	40	0	:	1 1	. Y	n/a	Bachelor None None	*			Α	R		Arts, Audio/Video Technology & Communications
Sewers, Hand (51-6051): Sew, join, reinforce, or finish, usually with needle and thread, a variety of manufactured items. Includes weavers and stitchers.	n	n	n	ı	n r	•	n/a	Less than HS None Moderate OJT				R	Α	С	Manufacturing
Sewing Machine Operators (51-6031): Operate or tend sewing machines to join, reinforce, decorate, or perform related sewing operations in the manufacture of garment or nongarment products.	609	564	0	4	1 4	Ψ	\$13.98	Less than HS None Short OJT	*			R	С		Manufacturing
Shampooers (39-5093): Shampoo and rinse customers' hair.	n	n	n	1	n r	u	n/a	Less than HS None Short OJT			*	R	E	С	Human Services
Sheet Metal Workers (47-2211): Fabricate, assemble, install, and repair sheet metal products such as ducts, control boxes, drainpipes, and furnace casings. May set up and operate machines to cut, bend, or straighten sheet metal; shape using hammer; or solder and weld to join sheet metal parts.	793	834	4	1	7 21	7	\$20.87	High School None Apprentice	*	*		R	С		Architecture & Construction
Ship Engineers (53-5031): Supervise and coordinate activities of crew engaged in operating and maintaining engines, boilers, deck machinery, and electrical, sanitary, and refrigeration equipment aboard ship.	n	n	n	ı	n r	u	n/a	Postsecondary < 5 years None		*		R	С		Transportation, Distribution & Logistics
Shipping, Receiving, and Traffic Clerks (43-5071): Verify and maintain records on shipments. Prepare items for shipment. May assemble, address, stamp, and ship merchandise or material; receive, unpack, verify and record incoming merchandise or material; or arrange for product transportation.	2,729	2,717	0	59	9 59	4	\$15.85	High School None Short OJT		*		С	R	-	Business Management & Administration
Shoe and Leather Workers and Repairers (51-6041): Construct, decorate, or repair leather and leather-like products, such as luggage, shoes, and saddles.	46	33	0	:	1 1	•	n/a	High School None Moderate OJT	*			R	С	Α	Manufacturing

	New Ha			tional Pro Annual Op		Future	2015 Average	Entry-Level	orentice	Military	License	H In	ollar tere:		Career Cluster
Occupation, SOC Code, and Description	2014	2024	Growth	Replace	Total	Outlook	Wage	Education Experience Training	App	Mil	Ŧ	1st	2nd	3rd	
Signal and Track Switch Repairers (49-9097): Install, inspect, test, maintain, or repair electric gate crossings, signals, signal equipment, track switches, section lines, or intercommunications systems within a railroad system.	n	n	n	n	n	•	n/a	High School None Moderate OJT	*			R	С		Transportation, Distribution & Logistics
Skincare Specialists (39-5094): Provide skincare treatments to face and body to enhance an individual's appearance. Includes electrologists and laser hair removal specialists.	355	403	5	3	8	7	\$14.30	Postsecondary None None			*	E	S	R	Human Services
Slaughterers and Meat Packers (51-3023): Work in slaughtering, meat packing, or wholesale establishments performing precision functions involving the preparation of meat. Work may include cutting standard or premium cuts of meat for marketing, making sausage, or wrapping meats.	40	43	0	1	1	71	n/a	Less than HS None Short OJT	*			R	С	Е	Manufacturing
Social and Community Service Managers (11-9151): Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits.	563	619	6	15	21	↑	\$30.08	Bachelor 5+ years None		*		E	S	С	Human Services
Social and Human Service Assistants (21-1093): Assist in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services.	2,187	2,460	27	43	70	↑	\$14.36	High School None Short OJT	*			С	S	E	Human Services
Social Science Research Assistants (19-4061): Assist social scientists in laboratory, survey, and other social science research. May help prepare findings for publication and assist in laboratory analysis, quality control, or data management.	n	n	n	n	n	y .	n/a	Bachelor None None				С	I	R	Science, Technology, Engineering & Math
Social Sciences Teachers, Postsecondary, All Other (25-1069): All postsecondary social sciences teachers not listed separately. May primarily teach or teach and conduct research.	62	70	1	1	2	7	\$81,758	Doctorate None None		*					Education & Training
Social Scientists and Related Workers, All Other (19-3099): All social scientists and related workers not listed separately. Includes Transportation Planners.	142	147	0	2	2	n	\$35.16	Bachelor None None		*					Science, Technology, Engineering & Math
Social Work Teachers, Postsecondary (25-1113): Teach courses in social work. May primarily teach or teach and conduct research.	n	n	n	n	n	u	n/a	Doctorate None None				s	I	Α	Education & Training
Social Workers, All Other (21-1029): All social workers not listed separately.	122	126	0	3	3	2	\$30.08	Bachelor None None		*					Human Services
Sociology Teachers, Postsecondary (25-1067): Teach courses in sociology. May primarily teach or teach and conduct research.	55	61	1	1	2	7	\$94,218	Doctorate None None				S	I	А	Education & Training

			i i	ional Pro			2015		ntice	Military	ense		ollar		
Occupation, SOC Code, and Description	Emplo 2014		_	Annual Op Replace		Future Outlook	Average Wage	Entry-Level Education Experience Training	hppre	Ailitaı	H Lic	Int 1st	eres		Career Cluster
Software Developers, Applications (15-1132): Develop, create, and modify computer applications software or specialized utility programs. Analyze user needs and develop software solutions. Design or customize software for client. May analyze and design databases within an application area.	4,450	5,286		64	148			Bachelor None None	*	2	2	I			Information Technology
Software Developers, Systems Software (15-1133): Research, design, develop, and test operating systems-level software, compilers, and network distribution software. Set operational specifications and formulate and analyze software requirements. May design embedded systems software.	1,410	1,585	18	20	38	↑	\$57.74	Bachelor None None		*		I	С	R	Information Technology
Soil and Plant Scientists (19-1013): Research physiology, production, yield, and management of crops and agricultural plants or trees, shrubs, and nursery stock, growth in soils, and pest control; or study the biological, chemical, physical, and mineral make up of soils for plant or crop growth.	n	n	n	n	n	7	\$44.00	Bachelor None None	*		*	I	R	ΑΙ	Agriculture, Food & Natural Resources
Sound Engineering Technicians (27-4014): Operate machines and equipment to record, synchronize, mix, or reproduce music, voices, or sound effects in sporting arenas, theater productions, recording studios, or movie and video productions.	n	n	n	n	n	u	n/a	Postsecondary None Short OJT	*	*		R	Α	С	Arts, Audio/Video Technology & Communications
Special Education Teachers, All Other (25-2059): All special education teachers not listed separately. Includes Adapted Physical Education Specialists.	n	n	n	n	n	•	n/a	Bachelor None Internship			*				Education & Training
Special Education Teachers, Kindergarten and Elementary School (25-2052): Teach school subjects to educationally and physically handicapped students. Includes teachers of audibly and visually handicapped students or basic academic and life processes skills to the mentally impaired.	1,146	1,190	4	22	26	7	\$56,092	Bachelor None Internship			*	S	Α	С	Education & Training
Special Education Teachers, Middle School (25-2053): Teach middle school subjects to educationally and physically handicapped students. Includes those who work with audibly and visually handicapped students or teach basic academic and life processes skills to the mentally impaired.	594	613	2	11	13	7	\$55,780	Bachelor None Internship			*	S	Α		Education & Training
Special Education Teachers, Preschool (25-2051): Teach school subjects to educationally and physically handicapped students. Includes teachers of audibly and visually handicapped students or basic academic and life processes skills to the mentally impaired.	52	55	0	1	1	u	\$48,916	Bachelor None Internship			*	S	Α	С	Education & Training
Special Education Teachers, Secondary School (25-2054): Teach secondary subjects to educationally and physically handicapped students. Includes those who work with audibly and visually handicapped students or teach basic academic and life processes skills to the mentally impaired.	562	579	2	11	13	7	\$57,546	Bachelor None Internship			*	S	I	Α	Education & Training
Speech-Language Pathologists (29-1127): Assess and treat persons with speech, language, voice, and fluency disorders. May select alternative communication systems and teach their use. May perform research related to speech and language problems.	580	647	7	15	22	↑	\$34.90	Masters None None		*	*	S	I	Α	Health Science
Stationary Engineers and Boiler Operators (51-8021): Operate or maintain stationary engines, boilers, or other mechanical equipment to provide utilities for buildings or industrial processes. Operate equipment such as steam engines, generators, motors, turbines, and steam boilers.	86	83	0	2	2	•	\$27.11	High school None Long OJT	*	*		R	I	С	Architecture & Construction

			1	ional Pro			2015		entice	Military	cense		ollan		Communication
Occupation, SOC Code, and Description	Emplo 2014		_	Annual Op Replace		Future Outlook	_	Entry-Level Education Experience Training	Appre	Vilita	팔	1st	eres 2nd		Career Cluster
Statistical Assistants (43-9111): Compile and compute data according to statistical formulas for use in statistical studies. May perform actuarial computations and compile charts and graphs for use by actuaries. Includes actuarial clerks.	195	185	0	8	8		\$22.88	Bachelor None None	P	*	2	С	I		Government & Public Adminstration
Statisticians (15-2041): Develop or apply mathematical or statistical theory and methods to collect, organize, interpret, and summarize numerical data to provide usable information. May specialize in fields such as bio-statistics, agricultural statistics, business statistics, or economic statistics.	88	126	4	2	6	71	\$33.24	Masters None None		*		С	I		Science, Technology, Engineering & Math
Stock Clerks and Order Fillers (43-5081): Receive, store, and issue sales floor merchandise, materials, equipment, and other items from stockroom, warehouse, or storage yard to fill shelves, racks, tables, or customers' orders. May mark prices on merchandise and set up sales displays.	13,179	13,977	80	418	498	7	\$12.68	Less than HS None Short OJT		*		С	R	Е	Business Management & Administration
Stonemasons (47-2022): Build stone structures such as piers, walls, and abutments. Lay walks, curbstones, or special types of masonry for vats, tanks, and floors.	120	131	1	1	2	7	\$19.94	High School None Apprentice	*			R	Α		Architecture & Construction
Structural Iron and Steel Workers (47-2221): Raise, place, and unite iron or steel girders, columns, and other structural members to form completed structures or structural frameworks. May erect metal storage tanks and assemble prefabricated metal buildings.	149	143	0	2	2	4	\$22.61	High School None Apprentice	*	*		R	С	I	Architecture & Construction
Structural Metal Fabricators and Fitters (51-2041): Fabricate, position, align, and fit parts of structural metal products. Shipfitters are included in <i>Layout Workers, Metal and Plastic</i> (51-4192).	353	382	3	6	g	7	\$21.36	High School None Moderate OJT	*	*		R	С	I	Architecture & Construction
Substance Abuse and Behavioral Disorder Counselors (21-1011): Counsel and advise individuals with alcohol, tobacco, drug, or other problems such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs.	213	271	6	4	10	7	\$26.96	Bachelor None None		*	*	S	Α	I	Human Services
Substitute Teachers (25-3098): Teach students in a public or private school when the regular teacher is unavailable due to illness, personal leave, or other reasons.	2,798	2,895	10	53	63	7	\$11.08	Bachelor None None				S	Α		Education & Training
Surgeons (29-1067): Physicians who treat diseases, injuries, and deformities by invasive, minimally-invasive, or non-invasive surgical methods, such as using instruments, appliances, or by manual manipulation.	257	303	5	7	12	^	\$131.76	Doctorate None Residency		*	*	I	R	S	Health Science
Surgical Technologists (29-2055): Assist in operations, under the supervision of surgeons or surgical personnel. Help set up operating room, prepare and transport patients, pass instruments or supplies, adjust lights and equipment, hold retractors, cut sutures, or count sponges, needles, and instruments.	360	406	5	4	g	71	\$23.11	Postsecondary None None	*	*		R	S	С	Health Science
Survey Researchers (19-3022): Plan, develop, or conduct surveys. May analyze and interpret the meaning of survey data, determine survey objectives, or suggest or test question wording. Includes social scientists who primarily design questionnaires or supervise survey teams.	n	n	n	n	n	4	n/a	Masters None None				I	С		Science, Technology, Engineering & Math

	Emplo	yment	Avg. A	ional Pro	enings	Future	_	Entry-Level	oprentice	Military	4 License	Int	ollar eres	sts	Career Cluster
Occupation, SOC Code, and Description Surveying and Mapping Technicians (17-3031): Perform surveying and mapping duties to obtain data for construction, mapmaking, boundary location, mining, or other purposes. Create maps from source data, such as aerial photography or satellite data, to show topographical features.	2014	2024	Growth 0	Replace 2	2	Outlook		Education Experience Training High School None Moderate OJT		*		1st C	zna R	I I	Architecture & Construction
Surveyors (17-1022): Make exact measurements and determine property boundaries. Provide data on the shape, contour, gravitation, location, elevation, or dimension of land or land features on or near the earth's surface for engineering, mapping, mining, land evaluation, or construction.	256	254	0	8	8	u	\$25.88	Bachelor < 5 years None		*	*	R	I	С	Architecture & Construction
Switchboard Operators, Including Answering Service (43-2011): Operate telephone business systems equipment or switchboards to relay incoming, outgoing, and interoffice calls. May supply information to callers and record messages.	489	335	0	6	6	u	\$14.28	High School None Short OJT		*		С	E	S	Business Management & Administration
Tailors, Dressmakers, and Custom Sewers (51-6052): Design, make, alter, repair, or fit garments.	214	191	0	7	7	y .	\$17.36	Less than HS None Moderate OJT	*			R	Α	E	Human Services
Tank Car, Truck, and Ship Loaders (53-7121): Load and unload chemicals and bulk solids, such as coal, sand, and grain into or from tank cars, trucks, or ships using material moving equipment. May gauge or sample tanks and test them for leaks, or perform other tasks related to product shipment.	n	n	n	n	n	4	n/a	Less than HS None Short OJT	*	*		R	С		Transportation, Distribution & Logistics
Tapers (47-2082): Seal joints between plasterboard or other wallboard to prepare wall surface for painting or papering.	100	101	0	1	1	y	\$32.40	Less than HS None Moderate OJT	*			R	С		Architecture & Construction
Tax Examiners and Collectors, and Revenue Agents (13-2081): Determine tax liability or collect taxes from individuals or business firms according to prescribed laws and regulations.	356	364	1	15	16	7	\$26.48	Bachelor None Moderate OJT				С	E	S	Government & Public Adminstration
Tax Preparers (13-2082): Prepare tax returns for individuals or small businesses.	461	487	3	12	15	7	\$17.30	High School None Moderate OJT				С	E	S	Finance
Taxi Drivers and Chauffeurs (53-3041): Drive automobiles, vans, or limousines to transport passengers. May occasionally carry cargo. Includes hearse drivers.	1,152	1,311	16	22	38	↑	\$12.56	Less than HS None Short OJT				R	E	S	Transportation, Distribution & Logistics
Teacher Assistants (25-9041): Perform duties that are instructional in nature, or deliver direct services to students or parents. Serve in a position for which a teacher has ultimate responsibility for the design and implementation of educational programs and services.	11,802	12,320	52	283	335	71	\$28,808	Some College None None	*		*	S	С	Α	Education & Training
Teachers and Instructors, All Other, Except Substitute Teachers (25-3097): All teachers and instructors not listed separately. Includes Tutors.	2,065	2,227	16	39	55	↑	\$42,996	Bachelor None Internship		*					Education & Training

	New Ha			i onal Pro Annual Op		Future	2015 Average	Entry-Level	orentice	Military	License	Hol Inte			Career Cluster
Occupation, SOC Code, and Description Team Assemblers (51-2092): Work as part of a team responsible for assembling an entire product or component of a product. Team assemblers can perform all tasks conducted by the team and rotate through all or most of them rather than being assigned to a specific task on a permanent basis.	4,084	4,189		Replace 88	Total 98	Outlook		Education Experience Training High School None Moderate OJT	★	Mil		lst 2	nd C		Manufacturing
Technical Writers (27-3042): Write technical materials, such as equipment manuals, appendices, or operating and maintenance instructions. May assist in layout work.	261	280	2	6	8	7	\$38.72	Bachelor < 5 years Short OJT				A	I		Arts, Audio/Video Technology & Communications
Telecommunications Equipment Installers and Repairers, Except Line Installers (49-2022): Install, set up, rearrange, or remove switching, distribution, routing, or dialing equipment in central offices or headends. Service or repair	1,222	1,137	0	11	11	n	\$31.81	Postsecondary None Moderate OJT	*	*		R	I	С	Arts, Audio/Video Technology & Communications
Telecommunications Line Installers and Repairers (49-9052): Install and repair telecommunications cable, including fiber optics.	545	540	0	10	10	y	\$28.27	High school None Long OJT	*	*		R	E	С	Arts, Audio/Video Technology & Communications
Telemarketers (41-9041): Solicit donations or orders for goods or services over the telephone.	661	686	2	12	14	71	\$14.76	Less than HS None Short OJT				Е	с	R	Marketing
Telephone Operators (43-2021): Provide information using alphabetical, geographical, or other directories. Assist with billing requests, such as third-party charges and credits or refunds for wrong numbers or bad connections. May handle emergency calls or assist children and others to make calls.	n	n	n	n	n	•	n/a	High School None Short OJT				с	s		Business Management & Administration
Tellers (43-3071): Receive and pay out money. Keep records of money and negotiable instruments involved in a financial institution's various transactions.	2,011	1,907	0	79	79	n	\$13.50	High School None Short OJT	*	*		с	E	R	Finance
Textile Bleaching and Dyeing Machine Operators and Tenders (51-6061): Operate or tend machines to bleach, shrink, wash, dye, or finish textiles or synthetic or glass fibers.	28	28	0	0	0	•	\$15.41	High School None Short OJT				R	С		Manufacturing
Textile Cutting Machine Setters, Operators, and Tenders (51-6062): Set up, operate, or tend machines that cut textiles.	47	42	0	1	1	•	\$15.76	High School None Moderate OJT				R	С		Manufacturing
Textile Knitting and Weaving Machine Setters, Operators, and Tenders (51-6063): Set up, operate, or tend machines that knit, loop, weave, or draw in textiles.	264	262	0	4	4	•	\$15.70	High School None Short OJT	*			R	с	E	Manufacturing
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders (51-6064): Set up, operate, or tend machines that wind or twist textiles, or draw out and combine sliver, such as wool, hemp, or synthetic fibers. Includes slubber machine and drawing frame operators.	n	n	n	n	n	•	n/a	High School None Moderate OJT	*			R	С		Manufacturing

Occupation, SOC Code, and Description		yment	Avg.	t ional Pro Annual Op Replace	enings	Future Outlook	_	Entry-Level Education Experience Training	pprentice	Military	IH License	Holl Inter		Career Cluster
Textile, Apparel, and Furnishings Workers, All Other (51-6099): All textile, apparel, and furnishings workers not listed separately.	420	439	2	4	. 6	71		High School None Short OJT	*	2	2 -			Manufacturing
Therapists, All Other (29-1129): All medical therapists not listed separately.	25	31	1	0	1	7	n/a	Bachelor None None						Health Science
Tile and Marble Setters (47-2044): Apply hard tile, marble, and wood tile to walls, floors, ceilings, and roof decks.	84	89	0	1	. 1	u	\$22.81	Less than HS None Long OJT	*		1	₹ 0	А	Architecture & Construction
Timing Device Assemblers and Adjusters (51-2093): Perform precision assembling, adjusting, or calibrating, within narrow tolerances, of timing devices such as digital clocks or timing devices with electrical or electronic components.	n	n	n	n	n	4	n/a	High School None Moderate OJT			ı	2 0		Manufacturing
Tire Builders (51-9197): Operate machines to build tires.	n	n	n	n	n	4	n/a	High School None Moderate OJT			1	₹ 0	I	Manufacturing
Tire Repairers and Changers (49-3093): Repair and replace tires.	624	609	0	21	. 21	Ä	\$11.91	High School None Short OJT			ı	2 0	I	Transportation, Distribution & Logistics
Title Examiners, Abstractors, and Searchers (23-2093): Search real estate records, examine titles, or summarize pertinent legal or insurance documents for a variety of purposes. May compile lists of mortgages or contracts pertaining to titles by searching public and private records.	91	88	0	2	. 2	Ψ	\$21.28	High School None Short OJT			(C E	R	Law, Public Safety, Corrections & Security
Tool and Die Makers (51-4111): Analyze specifications, lay out metal stock, set up and operate machine tools, and fit and assemble parts to make and repair dies, cutting tools, jigs, fixtures, gauges, and machinists' hand tools.	352	319	0	2	. 2	Ψ	\$24.46	High school None Long OJT	*			R I	С	Manufacturing
Tool Grinders, Filers, and Sharpeners (51-4194): Perform precision smoothing, sharpening, polishing, or grinding of metal objects.	77	65	0	2	. 2	Ψ	\$20.22	High School None Moderate OJT	*	*		₹ 0		Manufacturing
Tour Guides and Escorts (39-7011): Escort individuals or groups on sightseeing tours or through places of interest, such as industrial establishments, public buildings, and art galleries.	145	161	2	6	5 8	71	\$14.35	High School None Moderate OJT				S E	А	Hospitality & Tourism
Traffic Technicians (53-6041): Under the direction of a traffic engineer, conduct field studies to determine traffic volume, speed, effectiveness of signals, adequacy of lighting, and other factors influencing traffic conditions.	n	n	n	n	n	u	n/a	High School None Moderate OJT				R I	E	Transportation, Distribution & Logistics

	New Ha	yment	Avg.	tional Pro Annual Op	enings	Future	2015 Average	Entry-Level	prentice	Military	License	Int	ollar eres	sts	Career Cluster
Occupation, SOC Code, and Description Training and Development Managers (11-3131): Plan, direct, or coordinate the training and development activities and staff of an organization.	97	103	Growth 1	Replace 3	Total 4	Outlook	\$51.39	Education Experience Training Bachelor 5+ years None	Ap	*		1st E	2nd S	C	Business Management & Administration
Training and Development Specialists (13-1151): Design and conduct training and development programs to improve individual and organizational performance. May analyze training needs.	1,003	1,100	10	24	34	1	\$32.11	Bachelor < 5 years None	*	*		S	Α	С	Business Management & Administration
Transportation Attendants, Except Flight Attendants (53-6061): Provide services to ensure the safety and comfort of passengers aboard ships, buses, trains, or within the station or terminal. Greet passengers, explain the use of safety equipment, serve meals or beverages, or answer questions.	n	n	n	n	n	y .	n/a	High School None Short OJT				S	E	R	Transportation, Distribution & Logistics
Transportation Inspectors (53-6051): Inspect equipment or goods in connection with the safe transport of cargo or people. Includes rail transportation inspectors, such as freight inspectors, rail inspectors, and other inspectors of transportation vehicles not elsewhere classified.	42	45	0	1	1	7	\$32.12	High School None Moderate OJT	*	*		R	С	I	Government & Public Adminstration
Transportation Security Screeners (33-9093): Screen passengers, baggage, or cargo to ensure compliance with Transportation Security Administration (TSA) regulations. May operate basic security equipment such as x-ray machines and hand wands at screening checkpoints.	143	140	0	2	2	4	\$19.61	High School None Short OJT				R	E	()	Government & Public Adminstration
Transportation Workers, All Other (53-6099): All transportation workers not listed separately.	79	85	1	4	5	7	\$15.33	High School None Short OJT		*					Transportation, Distribution & Logistics
Transportation, Storage, and Distribution Managers (11-3071): Plan, direct, or coordinate transportation, storage, or distribution activities in accordance with organizational policies and applicable government laws or regulations. Includes logistics managers.	359	370	1	8	9	Ä	\$47.74	High School 5+ years None		*		E	С		Transportation, Distribution & Logistics
Travel Agents (41-3041): Plan and sell transportation and accommodations for travel agency clients. Determine destination, modes of transportation, travel dates, costs, and accommodations required. May describe, plan, and arrange itineraries and sell tour packages, or help resolve travel problems.	386	370	0	6	6	y .	\$22.32	High School None Moderate OJT				E	С	S	Hospitality & Tourism
Tree Trimmers and Pruners (37-3013): Use climbing and rigging techniques to cut away dead or excess branches from trees or shrubs to maintain right-ofway for roads, sidewalks, or utilities, or to improve tree appearance, health, and value. Use handsaws, hand pruners, clippers, or power pruners.	180	192	1	3	4	u	\$20.78	High School None Short OJT	*			R	С	E	Agriculture, Food & Natural Resources
Truck Drivers, Heavy and Tractor-Trailer (53-3032): Drive a tractor-trailer combination or a truck with a capacity of at least 26,000 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license.	7,189	7,519	33	122	155	7	\$20.03	Postsecondary None Short OJT	*	*		R	С	I	Transportation, Distribution & Logistics
Truck Drivers, Light or Delivery Services Drivers (53-3033): Drive a light vehicle, such as a truck or van, with a capacity of less than 26,000 pounds Gross Vehicle Weight (GVW), primarily to deliver or pick up merchandise or to deliver packages. May load and unload vehicle.	4,362	4,645	28	74	102	7	\$14.38	High School None Short OJT				R	С		Transportation, Distribution & Logistics

Occupation, SOC Code, and Description	New Ha Emplo 2014	yment	Avg. A	i onal Pro Annual Op Replace	enings	Future Outlook	_	Entry-Level Education Experience Training	pprentice	Military	IH License		ollan eres	ts	Career Cluster
Umpires, Referees, and Other Sports Officials (27-2023): Officiate at competitive athletic or sporting events. Detect infractions of rules and decide penalties according to established regulations. Includes all sporting officials, referees, and competition judges.	n		n	n	n	7	n/a	High School None Moderate OJT	4	2	2	R	E		Hospitality & Tourism
Upholsterers (51-6093): Make, repair, or replace upholstery for household furniture or transportation vehicles.	113	123	1	3	4	7	\$22.29	High School None Moderate OJT	*			R	E		Manufacturing
Urban and Regional Planners (19-3051): Develop comprehensive plans and programs for use of land and physical facilities of jurisdictions such as towns, cities, counties, and metropolitan areas.	199	210	1	4	5	u	\$30.49	Masters None None				I	E	Α	Government & Public Adminstration
Ushers, Lobby Attendants, and Ticket Takers (39-3031): Assist patrons at entertainment events by performing duties such as collecting admission tickets and passes from patrons, assisting in finding seats, searching for lost articles, and locating such facilities as rest rooms and telephones.	225	240	2	14	16	7	\$8.45	Less than HS None Short OJT				S	С	E	Hospitality & Tourism
Veterinarians (29-1131): Diagnose, treat, or research diseases and injuries of animals. Includes veterinarians who conduct research and development, inspect livestock, or care for pets and companion animals.	372	409	4	6	10	7	\$46.87	Doctorate None None		*	*	I	R	S	Health Science
Veterinary Assistants and Laboratory Animal Caretakers (31-9096): Feed, water, and examine pets and other nonfarm animals for signs of illness, disease, or injury in labs or animal hospitals and clinics. Clean and disinfect cages, and sterilize lab and surgical equipment. May administer medication.	188	206	2	4	6	7	\$12.16	High School None Short OJT	*	*		R	S	I	Health Science
Veterinary Technologists and Technicians (29-2056): Perform medical tests in a laboratory for use in the treatment and diagnosis of animal diseases. Prepare vaccines, serums, or tissue samples, take blood samples, and execute tests. Clean and sterilize instruments, and maintain equipment.	721	872	15	7	22	↑	\$16.43	Associate None None				R	I	С	Health Science
Vocational Education Teachers, Postsecondary (25-1194): Teach or instruct vocational or occupational subjects at the postsecondary level (but less than the baccalaureate) to students who have graduated or left high school. Teach at public or private schools, or non-education institutions.	263	287	2	5	7	7	\$28.73	Bachelor < 5 years None		*	*	S	R	E	Education & Training
Waiters and Waitresses (35-3031): Take orders and serve food and beverages to patrons at tables in dining establishment.	12,093	12,686	59	582	641	7	\$11.53	Less than HS None Short OJT				S	E	С	Hospitality & Tourism
Watch Repairers (49-9064): Repair, clean, and adjust mechanisms of timing instruments such as watches and clocks. Includes watchmakers, watch technicians, and mechanical timepiece repairers.	n	n	n	n	n	•	n/a	High school None Long OJT	*			R	С	I	Manufacturing
Water and Wastewater Treatment Plant and System Operators (51-8031): Operate or control an entire process or system of machines, often through the use of control boards, to transfer or treat water or wastewater.	368	393	2	9	11	7	\$23.60	High school None Long OJT	*	*	*	R	С		Agriculture, Food & Natural Resources

Occupation, SOC Code, and Description		yment	Avg.	i onal Pro j Annual Op Replace	enings	Future Outlook	2015 Average Wage	Entry-Level Education Experience Training	Apprentice	Military	NH License	Ho Inte		ts	Career Cluster
Web Developers (15-1134): Design, create, and modify Web sites. Analyze user needs to implement Web site content, graphics, performance, and capacity. May integrate Web sites with other computer applications.	907	1,172	26	12	38	1	\$28.26	Associate None None				С	I	R	Information Technology
Weighers, Measurers, Checkers, and Samplers, Recordkeeping (43-5111): Weigh, measure, and check materials, supplies, and equipment for the purpose of keeping relevant records. Duties are primarily clerical by nature.	166	170	0	5	5	u	\$18.59	High School None Short OJT			*	С	R	Е	Manufacturing
Welders, Cutters, Solderers, and Brazers (51-4121): Use hand-welding, flame-cutting, hand soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.	1,114	1,157	4	32	36	7	\$20.19	High School None Moderate OJT	*	*		R	С	I	Manufacturing
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (51-4122): Set up, operate, or tend welding, soldering, or brazing machines or robots that weld, braze, solder, or heat treat metal products, components, or assemblies. Includes laser cutter or laser-beam machine operators.	282	244	0	8	8	7	\$15.32	High School None Moderate OJT	*			R	С		Manufacturing
Wholesale and Retail Buyers, Except Farm Products (13-1022): Buy merchandise or commodities, except farm products, for resale to wholesale or retail consumers. Analyze buying trends, sales records, price, and quality of merchandise. Select, order, and authorize payment for merchandise.	564	611	5	18	23	↑	\$28.89	Bachelor None Long OJT				Е	С	R	Marketing
Woodworkers, All Other (51-7099): All woodworkers not listed separately.	n	n	n	n	n	y .	\$18.16	High School None Moderate OJT							Manufacturing
Woodworking Machine Setters, Operators, and Tenders, Except Sawing (51-7042): Set up, perate, or tend woodworking machines such as drill presses, lathes, shapers, routers, sanders, planers, and wood nailing machines. May operate CNC equipment.	505	524	2	9	11	71	\$14.70	High School None Short OJT	*			R	С	I	Manufacturing
Word Processors and Typists (43-9022): Use word processor, computer, or typewriter to type letters, reports, forms, or other material from rough draft, corrected copy, or voice recording. May perform other clerical duties as assigned.	88	75	0	0	0	•	\$16.98	High School None Short OJT	*	*		С	E		Business Management & Administration
Writers and Authors (27-3043): Originate and prepare written material such as scripts, stories, advertisements, and other material.	753	797	4	13	17	7	\$26.08	Bachelor None Moderate OJT		*		А	E	I	Arts, Audio/Video Technology & Communications
Zoologists and Wildlife Biologists (19-1023): Study the origins, behavior, diseases, genetics, and life processes of animals and wildlife. May collect and analyze biological data to determine the environmental effects of present and potential use of land and water habitats.	101	107	1	3	4	y .	\$26.59	Bachelor None None				I	R	(Agriculture, Food & Natural Resources